# FIGURE 1565

CCGAGGCCAAGTCCCGGGCGCTAGCCCACCTCCCACCCGCCTCTTGGCTCCTCTCCTCTAGGCCGTCGCTTTCGG GTTCTCTCATCGCTTCGTCGTTCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAGATGGGAGGCGAG GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGTCTTGAGATGTATAATATACTAAAAGCA GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAAGTCACTTTGCCTGATGGTAAA CAGGTTGATGCGGAATCTTGGAAAACTACACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCCCCTCTGGAAGAAGATTGTACCTTGGAGCTT CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGCCATGGAA AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA GGGGGTGTGTCTAGCAATGATTTCTCTTCTCTGGAGGCTTTGTGTAAGAAAATCATTAAAGAAAAACAAGCTTTT GAAAGACTGGAAGTTAAGAAAGAAACTTTACTGGCAATGTTTAAGTACAACAAGTTCAAATGCCGGATATTGAAT GAAAAGGTGAATACTCCAACTACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCCTCATGTT AGACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAAAGCAGATATG GAGACTCTCCAGAGAATTTATGGCATTTCATTCCCAGATCCTAAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG AGTTGCTTTTTTCTGCCAAAAGGAGCCTACATTTATAATGCACTTATTGAATTCATTAGGAGCGAATATAGGAAA AGAGGATTCCAGGAGGTAGTCACCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAACTGCCCAGGACAC TGCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAACTGCCTCTGCGGCTAGCTGATTTTTGGGGTACTTCAT  ${\tt AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTCCAACAGGATGATGCTCACATATTC}$ TGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTITGGATTTTCTACGTACGGTATATAGCGTATTTGGA TTTTCTTTTAAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAG AAACAACTTGAAAACAGTCTGAATGAATTTGGTGAAAAGTGGGAGTTAAACTCTGGAGATGGAGCTTTCTATGGC CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACCAGTGTGCAACCATCCAGCTGGATTTCCAG TTGCCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGATGATAAGAAAAGGCCAGTGATTGTTCATCGA GCCATCTTGGGATCAGTGGAAAGAATGATTGCTATCCTCACAGAAAACTATGGGGGCAAATGGCCCTTTTGGCTG TCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCCAAAAGGTACGACAACAATTC CACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTCGAAATGCACAG TTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAAATCAGTGGCACTGTTAATATCCGCACAAGA GACAATAAGGTCCACGGGGAACGCACCATTTCTGAAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGCAGC AAACAGGCAGAAGAAGTTTTAATGAAAAAATTACCCAGATTGGCTCCATGGAAAAGGAGGAACAGCGTTTCCG TAAAATTGACTTTGTACTCTGAAAACGTCAATTTATATTGAACTTGGAGGAGTTTGGCAAAGTCTGAATAGGTCA CCAATAAAATGATTTTACTCATTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTAGTGTAATGTGG GAGAACTTTTTTGTAAATTTAATGCAATTGAAAAAGTTTTCAAATTCAATTAAGATAACTAGAATTGGATTATGG TGTAA

MFEEKASSPSGKMGGEEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWPEYIYTRLEMYNILKAEHDSILAEK
AEKDSKPIKVTLPDGKQVDAESWKTTPYQIACGISQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEDEEAQ
AVYWHSSAHIMGEAMERVYGGCLCYGPPIENGFYYDMYLEEGGVSSNDFSSLEALCKKIIKEKQAFERLEVKKET
LLAMFKYNKFKCRILNEKVNTPTTTVYRCGPLIDLCRGPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGI
SFPDPKMLKEWEKFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGAYIYNALIEFIRSEYRKRGFQEVVTP
NIFNSRLWMTSGHWQHYSENMFSFEVEKELFALKPMNCPGHCLMFDHRPRSWRELPLRLADFGVLHRNELSGALT
GLTRVRRFQQDDAHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDIEVWDQAEKQLENSLNE
FGEKWELNSGDGAFYGPKIDIQIKDAIGRYHQCATIQLDFQLPIRFNLTYVSHDGDDKKRPVIVHRAILGSVERM
IAILTENYGGKWPFWLSPRQVMVVPVGPTCDEYAQKVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILV
VGEKEKISGTVNIRTRDNKVHGERTISETIERLQQLKEFRSKQAEEEF

GGCGCCGGGGATTGGGAGGGCTTCTTGCAGGCTGCTGGGCTGGGGCTAAGGGCTGCTCAGTTTCCTTCAGCGGGG CACTGGGAAGCGCCATGCACTGCAGGGCATCTCGGTCGTGGAGCTGTCCGGCCCTGGCCCCGGGCCCGTTCTGTG CTATGGTCCTGGCTGACTTCGGGGCGCGTGTGGTACGCGTGGACCGGCCCGGCTCCCGCTACGACGTGAGCCGCT TGGGCCGGGGCAAGCGCTCGCTAGTGCTGGACCTGAAGCAGCCGCGGGGAGCCGCCGTGCTGCGGCGTCTGTGCA AGCGGTCGGATGTGCTGCTGGAGCCCTTCCGCCGCGGTGTCATGGAGAAACTCCAGCTGGGCCCAGAGATTCTGC AGCGGGAAAATCCAAGGCTTATTTATGCCAGGCTGAGTGGATTTGGCCAGTCAGGAAGCTTCTGCCGGTTAGCTG GCCACGATATCAACTATTTGGCTTTGTCAGGTGTTCTCTCAAAAATTGGCAGAAGTGGTGAGAATCCGTATGCCC CGCTGAATCTCCTGGCTGACTTTGCTGGTGGTGGCCTTATGTGTGCACTGGGCATTATAATGGCTCTTTTTGACC GGAAAACTCAGAAATCGAGTCTGTGGGAAGCACCTCGAGGACAGAACATGTTGGATGGTGGAGCACCTTTCTATA CGACTTACAGGACAGCAGATGGGGAATTCATGGCTGTTGGAGCAATAGAACCCCAGTTCTACGAGCTGCTGATCA AAGGACTTGGACTAAAGTCTGATGAACTTCCCAATCAGATGAGCATGGATGATTGGCCAGAAATGAAGAAGAAGT TTGCAGATGTATTTGCAAAGAAGACGAAGGCAGAGTGGTGTCAAATCTTTGACGGCACAGATGCCTGTGTGACTC CGGTTCTGACTTTTGAGGAGGTTGTTCATCATGATCACAACAAGGAACGGGGCTCGTTTATCACCAGTGAGGAGC AGGACGTGAGCCCCGCCCTGCACCTCTGCTGTTAAACACCCCAGCCATCCCTTCTTTCAAAAAGGGATCCTTTCA TAGGAGAACACTGAGGAGATACTTGAAGAATTTGGATTCAGCCGCGAAGAGTTTATCAGCTTAACTCAGATA AAATCATTGAAAGTAATAAGGTAAAAGCTAGTCTCTAACTTCCAGGCCCACGGCTCAAGTGAATTTGAATACTGC ATTTACAGTGTAGAGTAACACATAACATTGTATGCATGGAAACATGGAGGAACAGTATTACAGTGTCCTACCACT CTAATCAAGAAAGAATTACAGACTCTGATTCTACAGTGATGATTGAATTCTAAAAATGGTTATCATTAGGGCTT TTGATTTATAAAACTTTGGGTACTTATACTAAATTATGGTAGTTATTCTGCCTTCCAGTTTGCTTGATATATTTG TTGATATTAAGATTCTTGACTTATATTTTGAATGGĞTTCTAGTGAAAAAGGAATGATATATTCTTGAAGACATCG ATATACATTTATTTACACTCTTGATTCTACAATGTAGAAAATGAGGAAATGCCACAAATTGTATGGTGATAAAAG TCACGTGAAACAGAGTGATTGGTTGCATCCAGGCCTTTTGTCTTGGTGTTCATGATCTCCCTCTAAGCACATTCC AAACTTTAGCAACAGTTATCACACT1TGTAATTTGCAAAGAAAAGTTTCACCTGTATTGAATCAGAATGCCTTCA TAGGGTTGCCTGTATCCAGTAACTCGGGGCCTGTTTCCCCGTGGGTCTCTGGGCTGTCAGCTTTCCTTTCTCCAT **ATCTCAGGACCCCCC** 

MALQGISVVELSGLAPGPFCAMVLADFGARVVRVDRPGSRYDVSRLGRGKRSLVLDLKQPRGAAVLRRLCKRSDV LLEPFRRGVMEKLQLGPEILQRENPRLIYARLSGFGQSGSFCRLAGHDINYLALSGVLSKIGRSGENPYAPLNLL ADFAGGGLMCALGIIMALFDRTRTGKGQVIDANMVEGTAYLSSFLWKTQKSSLWEAPRGQNMLDGGAPFYTTYRT ADGEFMAVGAIEPQFYELLIKGLGLKSDELPNQMSMDDWPEMKKKFADVFAKKTKAEWCQIFDGTDACVTPVLTF EEVVHHDHNKERGSFITSEEQDVSPRPAPLLLNTPAIPSFKRDPFIGEHTEEILEEFGFSREEIYQLNSDKIIES NKVKASL

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## 1696/6881 FIGURE 1570

TCTTTCTGGTCTCGGCCGCAGAAGCGAGATGACGAAGGGAACGTCATCGTTTGGAAAGCGTCGCAATAAGACGCA CACGTTGTGCCGCCGCTGTGGCTCTAAGGCCTACCACCTTCAGAAGTCGACCTGTGGCAAATGTGGCTACCCTGC CAAGCGCAAGAGAAAGTATAACTGGAGTGCCAAGGCTAAAAGACGAAATACCACCGGAACTGGTCGAATGAGGCA CCTAAAAATTGTATACCGCAGATTCAGGCATGGATTCCGTGAAGGAACAACACCTAAACCCAAGAGGGCAGCTGT TGCAGCATCCAGTTCATCT<u>TAA</u>GAATGTCAACGATTAGTCATGCAATAAATGTTCTGGTTTTAAAAAATAC

 ${\tt MTKGTSSFGKRRNKTHTLCRRCGSKAYHLQKSTCGKCGYPAKRKRKYNWSAKAKRRNTTGTGRMRHLKIVYRRFR\\ HGFREGTTPKPKRAAVAASSSS}$ 

# FIGURE 1572

GTGTCTGTGGGAGGTTATGTTTATTTGAGACTTCTCCATCGGGATCGCCTGGTGTCACCAAGTGTCCACTGGTAC GGTTCAAAGGCGATGGTGTAAAATATAAGGCCAAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGGATA GGATCTGGGTCAACATTTCCCTTTCTGGGATAAAAATAATTGATGAGAAAACTGGGGTAATAGAGCATGAACATC GCCAGCATCAGTTTTTTGCCATAAAAACCGGGCAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTC AAGTTATCTATAATGTAAAGAAAAAGGAAGAAGAAAAAGAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATG GGGACATGTCTACACCTCCTGACCTAAATAGTCCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTG AAATCGACACCAATCAGAATTCTTTAAGAGAAAATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCCTC GACCAACGCCTCAGGCATCCTTCTTGCCTGAAAATGCCTTTTCTGCCAATCTCAACTTCTTTCCCACCCCTAATC CTGATCCTTTCCGTGACGATCCTTTCACACACCCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTC CAGATCAGAAGAAAGAGAATTCGAGTAGCTCGTCTACTCCGCTGAGTAATGGGCCCCTGAATGGTGATGTTGACT CAAGTTCGCAAACCCAGCCAGCAGTGAGAACTCAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCA AATCCTCCCGAACCCTTTTGTGGGAAGCCCTCCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGG AAAGCTCTGTCCAGTCCTCACCACATGACTCCATAGCCATTATCCCACCTCCACAAAGTACCAAACCAGGAAGAG CAGGCCAGGCGTCACCCACAGGACAACCTACAGCCCTGCAGCCCAACCCTCTGGATCTCTTCAAAACAAGTGCTC GCATCTTTGGTCTTCAATCAGTCCCCTTCAATGGCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGT CAGCCCGTCATTTTTGGTACAAGTCCAGCTGTTTCAGGTTTGGAACCAGCCTTCACCCTTTTGCAGCCTCAACTCCC CCTCCAGTGCCTGTTGTCTGGGGCCCTTCTGCATCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGG GTCACTCCTCAGCCACCTCCCAGAGCTGGCCCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGAC CCACTTGGGGATAAAGAGATCAAGGATGTGAAAGAAATGTTTAAGGATTTCCAACTGCGGCAGCCACCTGCTGTG CCCGCGCGGAAGGGAGACCACTTCTTCTGGGACTTTGAGTGCCTTTGCCAGTTATTTCAACAGCAAGGTTGGC ATTCCTCAGGAGAATGCAGACCATGATGACTTTGATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAG TCTTTTGGTTCATCACAAGCCTCTGTGGCTTCTTCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGA AATCCTTTTGCCTAAATTCTGAACTTGGTCTGCAGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAA **AACAAAGCTGATAGCCAGACACGTTCTGATTTCTGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTT** CTCATTGCCTCTTCTACTTGTAAAATGCTTTTCACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTA **AATAAATTAAGATCCTAAACTCTCTAGCTTAAGTGTAAATGAAGTACAGTAGTTTCCCTACTGAACCCTGCCTCT** TGTGTCCCTGGAACCTTCTAGAACACCTGCCTTCTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATA TCATACTGTTTTGAATAAATTTTCAAATCCTTATTGTTCAGAGTTGTTTGGGGGGTTCTGTTTCAGAGCATAAAAC CTAAAGGTTATAGTAGAACAAGGCACCTTCTTAAAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTA AAGTAAAATTGAAGCAACTACAACTTCTCCTTAGACACTTTGGAATCTAACCACTTAAGGACCTTTTTAAAGAGA TGGGTTCAAGTAGTATTACCACCCTTTCACAAGCAACAGACTCTCACAGGGC

# FIGURE 1573

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TAGGATGGAAAGGCAGATGTAAAGTCCCTCATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAA AGATTCGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCC AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC AGTGTAAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAG CCCCTCTTCCCCAAACCCGCCTTTGGCCAGAAGCCGCCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC ATGAAGAATGTGTCTTCATCAAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCA GCAAGGGAAGACTCAGAAAATAAAGACCATGCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAA GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG GCCCCTTCTAAGCTGACAGTGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC  ${\tt ACCCCGAAACAGAAGCCATTGCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAAT}$ GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACT TCCCTGCCACCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCA GTCCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT GGTGTCACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTCATATGGCTATATTAAAACAACT GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAAGACTCTCTTGGTGCCCCTTCAAGACCTATTGAAGAT GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATA TTCCCTCCACCACCAGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAA GAAGAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAAATTAGAGTCCTATATTCAACTAAAGTTACAACT TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAAACCTGGTGAATCTCTAGAAGTTATACAAACC ACAGATGACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGACTAGCACTCAACTTTGGTCATT

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLKP LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMSASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS PAPLGVRSKSGPLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN LDEEQDSEGETYEDIEASKEREKKREKEEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG KNELSFKQGEQIEIIRITDNPEGKWLGRTARGSYGYIKTTAVEIDYDSLKLKKDSLGAPSRPIEDDQEVYDDVAE QDDISSHSQSGSGGIFPPPPDDDIYDGIEEEDADDGFPAPPKQLDMGDEVYDDVTSDFPVSSAEMSQGTNFGKA KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTSITSKKWGTRDLQVKPGESLEVIQTTDDTKVLCRN EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

# FIGURE 1575

 $\tt GTTCCCTGCAGTTGTTTGGGCTGTCCCTGTGGCTGGTTCTGGGGTGTGCGGCCAGCC\\ \underline{\textbf{ATG}} \texttt{GAGCGCTCTGGGCCC}$ CAGCGAAGTGACAGGCTCAGACGCGTCGGGACCGGACCCGCAGCTTGCGGTCACCATGGGCTTCACGGGGTTCGG TAAAAAAGCTCGCACATTTGACTTGGAAGCAATGTTTGAACAAACTCGAAGGACAGCTGTGGAAAGAAGTCGCAA GCCAACATCCTCAAGATCAAATGTGGTCAGAGATTGCTCCAAATCATCTTCCAGGGATACGAGCAGCAGTGAAAG TGAACAGAGTTCTGACTCTTCTGATGATGAGTTAATTGGCCCTCCTTTACCCCCTAAAATGGTAGGAAAACCAGT TAATTTTATGGAGGAAGATATCCTCGGTCCTTTACCTCCACCTCTTAATGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA AGAAGAGGAAGAGGAAGAGGAAAATCCTGTTCACAAGATTCCTGACTCGCATGAGATAACGCTGAAGCATGG CACTAAAACAGTGTCTGCTTTGGGTCTGGATCCCTCAGGTGCCCGTTTGGTGACAGGAGGATATGACTATGATGT TAAGTTTTGGGATTTTGCTGGAATGGATGCTTCTTTTAAGGCATTTCGATCCCTTCAGCCCTGTGAGTGCCATCA GATCAAGTCATTACAGTATAGTAACACAGGAGACATGATTCTTGTTGTATCTGGAAGCTCTCAGGCCAAGGTGAT TGACAGAGATGGTTTTGAAGTAATGGAATGTATAAAAGGAGACCAGTATATTGTGGACATGGCCAACACCAAGGG TCATACAGCAATGCTTCATACTGGCTCATGGCATCCCAAAATAAAGGGAGAATTTATGACTTGCTCAAATGATGC GACTGTGAGGACGTGGGAAGTTGAAAATCCAAAGAAGCAAAAAAGTGTGTTTAAACCACGGACGATGCAAGGCAA ACAGATCTGGGACCGAAATTTGACTGTTCATCCTAAGTTCCACTATAAACAGGCTCATGACTCGGGCACAGACAC TTCTTGCGTGACTTTTTCCTATGATGGTAATGTCCTTGCCTCTCGTGGAGGTGACGATTCATTAAAATTATGGGA CAGTCCAGATGATAAGCTCATAGTCACTGGTACATCTATTCAAAGAGGATGTGGCAGCGGCAAACTTGTTTTCTT TGAGCGTAGGACTTTCCAAAGGGTGTATGAAATAGACATCACAGATGCGAGTGTTGTTCGCTGCCTGTGGCATCC AAAGCTGAACCAGATCATGGTTGGAACTGGAAATGGATTGGCTAAAGTCTATTACGACCCCAACAAGAGTCAGAG GGGAGCAAAATTATGTGTGGTTAAAACCCAGCGGAAGGCAAAACAAGCTGAGACTCTAACTCAGGACTACATCAT CACCCCTCATGCCTTGCCTATGTTCCGTGAGCCCCGCCAACGGAGTACAAGGAAACAGCTGGAGAAGGACAGACT GGATCCCCTGAAGTCGCATAAACCTGAACCTCCTGTAGCAGGCCCAGGTCGTGGTGGCCGAGTTGGAACCCACGG GGGCACTCTCTCTCTATATTGTGAAGAACATTGCTTTGGACAAGACCGATGACAGTAATCCTCGGGAAGCCAT TTTGCGTCATGCCAAAGCAGCAGAAGACAGCCCATATTGGGTTTCTCCAGCATATTCCAAGACTCAGCCCAAAAC CATGTTTGCCCAAGTTGAATCTGATGATGAGGAAGCAAAGAATGAGCCAGAATGGAAAAAACGTAAAATT<u>TGA</u>AG 

MERSGPSEVTGSDASGPDPQLAVTMGFTGFGKKARTFDLEAMFEQTRRTAVERSRKTLEAREKEEEMNREKELRR QNEDIEPTSSRSNVVRDCSKSSSRDTSSSESEQSSDSSDDELIGPPLPPKMVGKPVNFMEEDILGPLPPPLNEEE EEAEEEEEEEEENPVHKIPDSHEITLKHGTKTVSALGLDPSGARLVTGGYDYDVKFWDFAGMDASFKAFRSLQ PCECHQIKSLQYSNTGDMILVVSGSSQAKVIDRDGFEVMECIKGDQYIVDMANTKGHTAMLHTGSWHPKIKGEFM TCSNDATVRTWEVENPKKQKSVFKPRTMQGKKVIPTTCTYSRDGNLIAAACQNGSIQIWDRNLTVHPKFHYKQAH DSGTDTSCVTFSYDGNVLASRGGDDSLKLWDIRQFNKPLFSASGLPTMFPMTDCCFSPDDKLIVTGTSIQRGCGS GKLVFFERRTFQRVYEIDITDASVVRCLWHPKLNQIMVGTGNGLAKVYYDPNKSQRGAKLCVVKTQRKAKQAETL TQDYIITPHALPMFREPRQRSTRKQLEKDRLDPLKSHKPEPPVAGPGRGGRVGTHGGTLSSYIVKNIALDKTDDS NPREAILRHAKAAEDSPYWVSPAYSKTQPKTMFAQVESDDEEAKNEPEWKKRKI

CGGGCTGTAGAGCCTTGCGCGCGCAGTGGGGATGGAACGTTGCTAGCCTTAGCGGGTCTGGCTGCTGGGGGCCCG AGCAGCACGCTCGGAGCCGCCGCGCCCCAAAGCGGGAATCTGGGAGGCGAGCAGCTCTGCAGTTAATGCACGTAT  $\tt TTTAAACTCCCGGGCCTGCGGACGCT{\underline{ATG}}{CACAGGAAGCACCTCCAGGAGATTCCAGACCTGAGTAGCAACGTTG$ CCACCAGCTTCACGTGGGGATGGGATTCCAGCAAGACTTCTGAACTGCTGTCAGGCATGGGGGGTCTCCGCCCTGG AGAAAGAGGAGCCCGACAGTGAGAACATCCCCCAGGAACTGCTCTCAAACCTGGGCCACCCGGAGAGCCCCCCAC GGAAACGGCTGAAGAGCAAAGGGAGTGACAAAGACTTTGTGATTGTCCGCAGGCCTAAGCTAAATCGAGAGAACT TGCTAAAGGTCTCTGGTGTTTGTAAGAGGTGGTATCGCCTAGCGTCTGATGAGTCTCTATGGCAGACCTTAGACC TCACAGGTAAAAATCTGCACCCGGATGTGACTGGTCGGTTGCTGTCTCAAGGGGTGATTGCCTTCCGCTGCCCAC GATCATTTATGGACCAACCATTGGCTGAACATTTCAGCCCTTTTCGTGTACAGCACATGGACCTATCGAACTCAG TTATAGAAGTGTCCACCCTCCACGGCATACTGTCTCAGTGTTCCAAGTTGCAGAATCTAAGCCTGGAAGGCCTGC GGCTTTCGGATCCCATTGTCAATACTCTCGCAAAAAACTCAAATTTAGTGCGACTTAACCTTTCTGGGTGTTCTG GATTCTCTGAATTTGCCCTGCAGACTTTGCTAAGCAGCTGTTCCAGACTGGATGAGCTGAACCTCTCCTGGTGTT TTGATTTCACTGAAAAGCATGTACAGGTGGCTGTTGCGCATGTGTCAGAGACCATCACCCAGCTGAATCTTAGCG TAAGTGATAGTGTCATGCTAAAGAATGACTGCTTTCAGGAATTTTTCCAGCTCAACTACCTCCAACACCTATCAC TCAGTCGGTGCTATGATATAATACCTGAAACTTTACTATTAGTGACAAGAGCTGGGGTTAGGATCCGGTTGGACT CTGACATCGGATGCCCTCAAACATACAGAACTTCCAAACTCAAGTCCAGCCATAAGCTATTTTGCCAACATGTCA  ${\tt GAGTAATCTGTATTTTGTATGTGATTTCTACTTTTATAGACTTGTTTTAAAACAA} {\color{red} {\tt TAA}} {\color{blue} {\tt AACACATTTTTATAAA}}$ AATGAGTGCTTAAACTAAAAAAAAAAAAAAAAAAAAAA

MHRKHLQEIPDLSSNVATSFTWGWDSSKTSELLSGMGVSALEKEEPDSENIPQELLSNLGHPESPPRKRLKSKGS DKDFVIVRRPKLNRENFPGVSWDSLPDELLLGIFSCLCLPELLKVSGVCKRWYRLASDESLWQTLDLTGKNLHPD VTGRLLSQGVIAFRCPRSFMDQPLAEHFSPFRVQHMDLSNSVIEVSTLHGILSQCSKLQNLSLEGLRLSDPIVNT LAKNSNLVRLNLSGCSGFSEFALQTLLSSCSRLDELNLSWCFDFTEKHVQVAVAHVSETITQLNLSGYRKNLQKS DLSTLVRRCPNLVHLDLSDSVMLKNDCFQEFFQLNYLQHLSLSRCYDIIPETLLLVTRAGVRIRLDSDIGCPQTY RTSKLKSSHKLFCQHVRVICIFVCDFYFYRLVLKQ

# FIGURE 1579

GGCCCGAGCAGCACGCTCGGAGCCGCCGCGCGCCAAAGCGGGAATCTGGGAGGCGAGCAGCTCTGCAGTTAATGC ACGTATTTTAAACTCCCGGGCCTGCGGACGCT<u>ATC</u>CACAGGAAGCACCTCCAGGAGATTCCAGACCTGAGTAGCA ACGTTGCCACCAGCTTCACGTGGGGATGGGATTCCAGCAAGACTTCTGAACTGCTGTCAGGCATGGGGGTCTCCG CCCTGGAGAAAGAGGAGCCCGACAGTGAGAACATCCCCCAGGAACTGCTCTCAAACCTGGGCCACCCGGAGAGCC CCCCACGGAAACGGCTGAAGAGCAAAGGGAGTGACAAAGACTTTGTGATTGTCCGCAGGCCTAAGCTAAATCGAG CTGAGCTGCTAAAGGTCTCTGGTGTTTGTAAGAGGTGGTATCGCCTAGCGTCTGATGAGTCTCTATGGCAGACCT TAGACCTCACAGGTAAAAATCTGCACCCGGATGTGACTGGTCGGTTGCTGTCTCAAGGGGTGATTGCCTTCCGCT GCCCACGATCATTTATGGACCAACCATTGGCTGAACATTTCAGCCCTTTTCGTGTACAGCACATGGACCTATCGA ACTCAGTTATAGAAGTGTCCACCCTCCACGGCATACTGTCTCAGTGTTCCAAGTTGCAGAATCTAAGCCTGGAAG GCCTGCGGCTTTCGGATCCCATTGTCAATACTCTCGCAAAAAACTCAAATTTAGTGCGACTTAACCTTTCTGGGT GTTCTGGATTCTCTGAATTTGCCCTGCAGACTTTGCTAAGCAGCTGTTCCAGACTGGATGAGCTGAACCTCTCCT GGTGTTTTGATTTCACTGAAAAGCATGTACAGGTGGCTGTTGCGCATGTGTCAGAGACCATCACCCAGCTGAATC TAGACTTAAGTGATAGTGTCATGCTAAAGAATGACTGCTTTCAGGAATTTTTCCAGCTCAACTACCTCCAACACC TATCACTCAGTCGGTGCTATGATATAATACCTGAAACTTTACTTGAACTTGGAGAAATTCCCACACTAAAAACAC TACAAGTTTTTGGAATCGTGCCAGATGGTACCCTTCAACTGTTAAAGGAAGCCCTTCCTCATCTACAGATTAATT GCTCCCATTTCACCACCATTGCCAGGCCAACTATTGGCAACAAAAAGAACCAGGAGATATGGGGCATCAAATGCC GACTGACACTGCAAAAGCCCAGTTGTCTA<u>TGAAGTATTTATTGCAGGATGGTGTCTCTTCTTTAGAA</u>CAGGGAAA ATAGGCAGGAAGCCCAATTGCTGGAGTACTTAGCTAGTTTTATTCTTGGTTTTCCCTTTGCCTTCATTCTGCAAG TATACTAGGGAGCCATTTGAGAGGG

MHRKHLQEIPDLSSNVATSFTWGWDSSKTSELLSGMGVSALEKEEPDSENIPQELLSNLGHPESPPRKRLKSKGS DKDFVIVRRPKLNRENFPGVSWDSLPDELLLGIFSCLCLPELLKVSGVCKRWYRLASDESLWQTLDLTGKNLHPD VTGRLLSQGVIAFRCPRSFMDQPLAEHFSPFRVQHMDLSNSVIEVSTLHGILSQCSKLQNLSLEGLRLSDPIVNT LAKNSNLVRLNLSGCSGFSEFALQTLLSSCSRLDELNLSWCFDFTEKHVQVAVAHVSETITQLNLSGYRKNLQKS DLSTLVRRCPNLVHLDLSDSVMLKNDCFQEFFQLNYLQHLSLSRCYDIIPETLLELGEIPTLKTLQVFGIVPDGT LQLLKEALPHLQINCSHFTTIARPTIGNKKNQEIWGIKCRLTLQKPSCL

#### 1707/6881 FIGURE 1581A

ATTCTTCTAAGGAGCCTAAATTCACCAAGTGCCGTTCACCTGAGCGAGAGACTTTTTCATGCCACTGGACAGATG AGGTTCATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAAGAATGGACTC AAGAATGGAAAGAATGCCCTGATTATGTTTCTGCTGGGGAAAACAGCTGTTACTTTAATTCATCGTTTACCTCCA TCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAAAAGTGTTTCTCTGTTGATGAAA TAGTGCAACCAGATCCACCCATTGCCCTCAACTGGACTTTACTGAACGTCAGTTTAACTGGGATTCATGCAGATA ACAAAGAAGTAAATGAAACTAAATGGAAAATGATGGACCCTATATTGACAACATCAGTTCCAGTGTACTCATTGA AAGTGGATAAGGAATATGAAGTGCGTGTGAGATCCAAACAACGAAACTCTGGAAATTATGGCGAGTTCAGTGAGG TGCTCTATGTAACACTTCCTCAGATGAGCCAATTTACATGTGAAGAAGATTTCTACTTTCCATGGCTCTTAATTA TTATCTTTGGAATATTTGGGCTAACAGTGATGCTATTTGTATTCTTATTTCTAAACAGCAAAGGATTAAAATGC TGATTCTGCCCCCAGTTCCAGTTCCAAAGATTAAAGGAATCGATCCAGATCTCCTCAAGGAAAGGAAAATTAGAGG AGGTGAACACAATCTTAGCCATTCATGATAGCTATAAACCCGAATTCCACAGTGATGACTCTTGGGTTGAATTTA AGAAATCACATAGTAACCTAGGGGTGAAGGATGGCGACTCTGGACGTACCAGCTGTTGTGAACCTGACATTCTGG AGACTGATTTCAATGCCAATGACATACATGAGGGTACCTCAGAGGTTGCTCAGCCACAGAGGTTAAAAGGGGAAG CAGATCTCTTATGCCTTGACCAGAAGAATCAAAATAACTCACCTTATCATGATGCTTGCCCTGCTACTCAGCAGC CCAGTGTTATCCAAGCAGAGAAAAAAAACAAACCACACTTCCTACTGAAGGAGCTGAGTCAACTCACCAAGCTG CCCATATTCAGCTAAGCAATCCAAGTTCACTGTCAAACATCGACTTTTATGCCCAGGTGAGCGACATTACACCAG TCTCACTCTGCCAAGAAAACTTCCTTATGGACAATGCCTACTTCTGTGAGGCAGATGCCAAAAAAGTGCCTCCCTG TGGCTCCTCACATCAAGGTTGAATCACACATACAGCCAAGCTTAAACCAAGAGGACATTTACATCACCACAGAAA GCCTTACCACTGCTGGGAGGCCTGGGACAGGAGAACATGTTCCAGGTTCTGAGATGCCTGTCCCAGACTATA CCTCCATTCATATAGTACAGTCCCCACAGGGCCTCATACTCAATGCGACTGCCTTGCCCTTGCCTGACAAAGAGT GAGCTACGTATTTAATAGCAAAGAATTGACTGGGGCAATAACGTTTAAGCCAAAACAATGTTTAAACCTTTTTTG GAAGAATGCTTAATCAGATAGATATTCCTATTGTGCAATGTAAATATTTTAAAGAATTGTGTCAGACTGTTTAGT AGCAGTGATTGTCTTAATATTGTGGGTGTTAATTTTTGATACTAAGCATTGAATGACTATGTTTTTAATGTATAG TAAATCACGCTTTTTGAAAAAGCGAAAAAATCAGGTGGCTTTTGCGGTTCAGGAAAATTGAATGCAAACCATAGC TTTTAATAATTTAGACTTCAAGCATGGCTATTTTATATTACACTACACACTGTGTACTGCAGTTGGTATGACCCC TTTTTTACAAAGCCCTTTTATACCTCCCCAGACTCCTTCAACAATTCTAAAATGATTGTAGTAATCTGCATTATT GGAATATAATTGTTTTATCTGAATTTTTAAACAAGTATTTGTTAATTTAGAAAACTTTAAAGCGTTTGCACAGAT CAACTTACCAGGCACCAAAAGAAGTAAAAGCAAAAAGAAAACCTTTCTTCACCAAATCTTGGTTGATGCCAAAA AAAAATACATGCTAAGAGAAGTAGAAATCATAGCTGGTTCACACTGACCAAGATACTTAAGTGCTGCAATTGCAC GCGGAGTGAGTTTTTTAGTGCGTGCAGATGGTGAGAGATAAGATCTATAGCCTCTGCAGCGGAATCTGTTCACAC CCAACTTGGTTTTGCTACATAATTATCCAGGAAGGGAATAAGGTACAAGAAGCATTTTGTAAGTTGAAGCAAATC GAATGAAATTAACTGGGTAATGAAACAAAGAGTTCAAGAAATAAGTTTTTGTTTCACAGCCTATAACCAGACACA TACTCATTTTTCATGATAATGAACAGAACATAGACAGAAGAAACAAGGTTTTCAGTCCCCACAGATAACTGAAAA CAGAGTCTCGCTCTGTCGCCAGGCTAGAGTGCAGTGGCGCGATCTTGACTCACTGCAATCTCCACCTCCCACAGG TTTGTATTTTAGCAGAGACGGGGTTTCACCATGTTGGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCACCC GACTCGGCCTCCCAAAGTGCTGGGATTACAGGTGTAAGCCACCGTGCCCAGCCCTAAACATCATTCTTGAGAGCA

# 1708/6881 FIGURE 1581B

 $\tt CCTTCACAGGCTCTTTCACC\underline{ATG} \tt CCTGGATCACTTCCTTTGAATGCAGAAGCTTGCTGGCCAAAAGATGTTGGG$ ATTGTTGCCCTTGAGATCTATTTTCCTTCTCAATATGTTGATCAAGCAGAGTTGGAAAAATATGATGGTGTAGAT GCTGGGAAGTATACCATTGGCTTGGGCCAGGCCAAGATGGGCTTCTGCACAGATAGAGAAGATATTAACTCTCTT TGCATGACTGTGGTTCAGAATCTTATGGAGAGAAATAACCTTTCCTATGATTGCATTGGGCGGCTGGAAGTTGGA ACAGAGACAATCATCGACAAATCAAAGTCTGTGAAGACTAATTTGATGCAGCTGTTTGAAGAGTCTGGGAATACA GATATAGAAGGAATCGACAACTAATGCATGCTATGGAGGCACAGCTGCTGTCTTCAATGCTGTTAACTGGATT GAGTCCAGCTCTTGGGATGGACGGTATGCCCTGGTAGTTGCAGGAGATATTGCTGTATATGCCACAGGAAATGCT AGACCTACAGGTGGAGTTGGAGCAGTAGCTCTGCTAATTGGGCCAAATGCTCCTTTAATTTTTGAACGAGGGCTT CGTGGGACACATATGCAACATGCCTATGATTTTTACAAGCCTGATATGCTATCTGAATATCCTATAGTAGATGGG AAACTCTCCATACAGTGCTACCTCAGTGCATTAGACCGCTGCTATTCTGTCTACTGCAAAAAAGATCCATGCCCAG AAACTGGTTCAGAAATCTCTAGCTCGGATGTTGCTGAATGACTTCCTTAATGACCAGAATAGAGATAAAAATAGT ATCTATAGTGGCCTGGAAGCCTTTGGGGATGTTAAATTAGAAGACACCTACTTTGATAGAGATGTGGAGAAGGCA TTTATGAAGGCTAGCTCTGAACTCTTCAGTCAGAAAACAAAGGCATCTTTACTTGTATCAAAATCAAAATGGAAAT ATGTACACATCTTCAGTATATGGTTCCCTTGCATCTGTTCTAGCACAGTACTCACCTCAGCAATTAGCAGGGAAG AGAATTGGAGTGTTTTCTTATGGTTCTGGTTTGGCTGCCACTCTGTACTCTCTTAAAGTCACACAAGATGCTACA CCGGGGTCTGCTCTTGATAAAATAACAGCAAGTTTATGTGATCTTAAATCAAGGCTTGATTCAAGAACTGGTGTG GCACCAGATGTCTTCGCTGAAAACATGAAGCTCAGAGAGGACACCCATCATTTGGTCAACTATATTCCCCAGGGT CGTCCCACTCCAAATGATGACACTTTGGATGAAGGAGTAGGACTTGTGCATTCAAACATAGCAACTGAGCATATT CCAAGCCCTGCCAAGAAAGTACCAAGACTCCCTGCCACAGCAGCAGCAGCAGCAGCAGCTGAAGCTGTCATTAGTAATGGG 

MPGSLPLNAEACWPKDVGIVALEIYFPSQYVDQAELEKYDGVDAGKYTIGLGQAKMGFCTDREDINSLCMTVVQN LMERNNLSYDCIGRLEVGTETIIDKSKSVKTNLMQLFEESGNTDIEGIDTTNACYGGTAAVFNAVNWIESSSWDG RYALVVAGDIAVYATGNARPTGGVGAVALLIGPNAPLIFERGLRGTHMQHAYDFYKPDMLSEYPIVDGKLSIQCY LSALDRCYSVYCKKIHAQWQKEGNDKDFTLNDFGFMIFHSPYCKLVQKSLARMLLNDFLNDQNRDKNSIYSGLEA FGDVKLEDTYFDRDVEKAFMKASSELFSQKTKASLLVSNQNGNMYTSSVYGSLASVLAQYSPQQLAGKRIGVFSY GSGLAATLYSLKVTQDATPGSALDKITASLCDLKSRLDSRTGVAPDVFAENMKLREDTHHLVNYIPQGSIDSLFE GTWYLVRVDEKHRRTYARRPTPNDDTLDEGVGLVHSNIATEHIPSPAKKVPRLPATAAEPEAAVISNGEH

CAATGGGTTTGCCACCAGAACACAGGTGTTGTGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAAAAGACTCA TATCAACATTGTCGTCATTGGACACGTAAATTCGGGCAAGTCCACCACTACTGGCCATCTGACCTACAAATGTGG TGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGACTCCTTCAAGTATGC CTGGGTCTTGCATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAATTTGAGAC CAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACTCAGAGACTTCATCAAAAACATGATTACAGGGACATC TCAGGCTGTGCTGTCCTGATGGTTGCTGCTGTGTTGGCGAATTTGAAACTGGTATCTCCAAGAATGGGCAGACC TGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTTGGTGTTAACAAAATGGATTCCACT GAGCCACCCTACAGCCAGAAGAGAGAGAGAGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGTTAC AACCCTGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAACATGCTGGAGCCGAGTGCTAACATG CCTTGGCTCAAGGATGGAAAGCCACCCGTAAGGATGGCAGTGCCAGCGGCACCATGCTGCAGGCTCTGGAC ATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCTGGTGTGGTGGTCACCTTTGCTCCAGTC AACATTACAACAGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTG GGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCA  $\verb|CCAATGGAAACAGCTGACTTCATTGCTCAGGTAATTATCCTGAACCATCCAGGCCAAATAAGCGCTGGCTATGCC|$  $\tt CCTATATTGGATTGCCACGCGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCGGTTCT$ GGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGGTTCCTGGCAAG GTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGGTGGCAAGGTCACGAAGTCTGCCCAGACAGCTCAG AAGGCTAAATGAATATTATCCCTAATACCTGCCACCCAACTCTTAATCAGTGGTGGAAGAATGGTCTCAGAACTG TTTGTTTCAATTGGCCATTTAAGTTTAGTAGTGAAAGACTGGTTAATGATAACAATGCATCGTAAAACCTTCAGA AATCAGTACTTTTTAATGGAAACAACTTGACCAAAAATTTGTCACAGAATTTTGAGACC

MDSTEPPYSQKREEEIVKEVSTYIKKIGYNPDTVAFVPISGWNGDNMLEPSANMPWLKGWKATRKDGSASGTMLL EALDCILPPTHPTDKPLRLPLQDVYKIGGIGTVPVGRVETGVLKPGVVVTFAPVNITTEVKSVEMHHEALSEALP GDNVGFNVKNVSVKDVRRGNVAGDSKNDPPMETADFIAQVIILNHPGQISAGYAPILDCHAAHIACKFAELKEKI DRGSGKKLEDGPKFLKSGDAAIVDMVPGKPIVESFSDYPPLGHFAVRDMRQTVAVGVIKAVDKKAAGGGKVTKSA QTAQKAK

#### 1715/6881 FIGURE 1588A

TTTGTCCATGTCTCGGACAGAGCCTGGGAAGCTGCCAGTGAGATTTCAGAGACCAAGAGCGGGAAGGGGCGGGGCG ATGTGGCAATCCGTCTGGGATGTGAAAAGCGTGGAGCGCATTTAGAGGAATTCGACGAAAACACAGGAAATCACT CCTCTCCCGCTCCTGGGCGCCGCTGCCACTGGGGCAGGGGCAGCGGGAACCGCGGCAGCGGGATAAGTGGCCCAGC TGCGTATCATTCAATGTTGATGTGAAAAATTCAATGACTTTCAGCGGCCCGGTGGAAGACATGTTTGGATATACT GTTCAACAATATGAAAATGAAGGAAGGAAAATGGGTGCTTATTGGTTCTCCGTTAGTTGGCCAACCCAAAAACAGA ACTGGAGATGTCTATAAGTGTCCAGTTGGGAGAGGTGAATCATTACCTTGTGTAAAGTTGGATCTACCAGTTAAT ACATCAATTCCCAATGTCACAGAAGTAAAGGAGAACATGACATTTGGATCAACTTTAGTCACCAAACCCAAATGGA GGATTTCTGGCTTGTGGGCCCTTATATGCCTATAGATGTGGACATTTGCATTACACAACTGGAATCTGTTCTGAC GTCAGCCCCACATTTCAAGTCGTGAATTCCATTGCCCCTGTACAAGAATGCAGCACTCAACTGGACATAGTCATA GTGCTGGATGGTTCCAACAGTATTTACCCATGGGACAGTGTTACAGCTTTTTTAAATGACCTTCTTGAAAGAATG GATATTGGTCCTAAACAGACACAGGTTGGAATTGTACAGTATGGAGAAAACGTGACCCATGAGTTCAACCTCAAT AAGTATTCTTCCACCGAAGAGGTACTTGTTGCAGCAAAGAAAATAGTCCAGAGAGGTGGCCGCCAGACTATGACA GCTCTTGGAATAGACACAGCAAGAAAGGAGGCATTCACGGAAGCCCGGGGTGCCCGAAGAGAGTTAAAAAAAGTC ATGGTTATTGTGACAGATGGAGAGTCTCATGACAATCATCGACTGAAGAAGGTCATCCAAGACTGTGAAGATGAA AACATTCAACGGTTTTCCATAGCTATTCTTGGCAGCTATAACCGAGGAAATTTAAGCACTGAAAAATTTGTGGAG GAAATAAAATCAATTGCAAGTGAACCCACTGAAAAGCATTTCTTCAATGTCTCTGATGAATTGGCTCTAGTCACC ATTGTTAAAACTCTGGGAGAAAGAATATTTGCCCTGGAAGCCACAGCTGACCAGTCAGCAGCTTCATTTGAAATG GAAATGTCTCAGACTGGCTTCAGTGCTCATTATTCACAGGACTGGGTCATGCTTGGAGCAGTAGGAGCCTATGAT TGGAATGGAACAGTTGTCATGCAGAAGGCTAGTCAAATCATAATCCCTCGAAACACAACCTTTAATGTTGAGTCT ACCAAAAAGAATGAACCGCTTGCTTCTTATTTAGGTTACACTGTAAACTCTGCTACTGCTTCTTCTGGAGATGTG CTCTATATTGCTGGACAGCCTCGGTACAATCATACAGGCCAGGTCATTATCTACAGGATGGAAGATGGAAACATC AAAATTCTCCAGACGCTCAGTGGAGAACAGATTGGTTCCTACTTTGGCAGTATTTTAACAACAACTGACATTGAC AAGGATTCTAATACTGACATTCTTCTAGTCGGAGCCCCTATGTACATGGGAACAGAAGAAGGAGGAGCAAGGAAAA GTGTATGTGTATGCTCTCAATCAGACAAGGTTTGAATATCAAATGAGCCTGGAACCTATTAAGCAGACGTGCTGT TCATCTCGGCAGCACAATTCATGCACAACAGAAAACAAAAATGAGCCATGCGGGGCTCGTTTTGGAACTGCAATT GCTGCTGTAAAAGACCTCAATCTTGATGGATTTAATGACATCGTGATAGGAGCTCCGCTGGAAGATGATCACGGG GGAGCTGTGTACATTTATCATGGAAGTGGCAAGACTATAAGGAAAGAGTATGCACAACGTATTCCATCAGGTGGG GATGGTAAGACACTGAAATTTTTTGGCCAGTCTATCCACGGAGAAATGGATTTAAATGGTGACGGTCTGACAGAT GTGACTATTGGGGGCCTTGGTGCTGCCCTCTTCTGGTCCCGAGATGTGGCCGTAGTTAAAGTGACCATGAAT TTTGAGCCAAATAAAGTGAATATTCAAAAGAAAAACTGCCATATGGAGGGAAAGGAAACAGTATGCATAAATGCT ACAGTGTGTTTTGATGTGAAATTAAAGTCTAAAGAAGACACGATTTATGAAGCTGATTTGCAGTACCGTGTCACC CTAGATTCACTAAGACAAATATCACGAAGTTTTTTCTCTGGAACTCAAGAGAGAAAGGTTCAAAGGAACATCACA GTTCGAAAATCAGAATGCACTAAGCACTCCTTCTACATGTTGACAAGCATGACTTTCAGGACTCTG<u>TGA</u>GAATAA CGTTGGACTTTAATCTTACCGATCCAGAAAATGGGCCTGTTCTTGATGATTCTCTACCAAACTCAGTACATGAAT ATATTCCCTTTGCCAAAGATTGTGGAAATAAGGAAAAATGTATCTCAGACCTCAGCCTGCATGTCGCCACCACTG AAAAGGACCTGCTGATTGTCCGATCCCAGAATGATAAGTTCAACGTTAGCCTCACAGTCAAAAATACAAAGGACA GTGCCTATAACACCAGGACAATAGTGCATTATTCTCCAAATCTAGTTTTTTCAGGAATTGAGGCTATCCAAAAAG ACAGTTGTGAATCTAATCATAATATCACATGTAAAGTTGGATATCCCTTCCTGAGAAGAGGAGAGATGGTAACTT GCGAAGAACCTCCTGAAACCCTTTCTGATAATGTAGTAAACATTTCTATCCCGGTAAAATATGAAGTTGGACTAC AGTTTTACAGCTCTGCAAGTGAATACCACATTTCAATTGCTGCCAATGAGACAGTCCCTGAAGTTATTAATTCTA CTGAGGACATTGGAAATGAAATTAATATCTTCTACTTGATTAGAAAAAGTGGATCTTTTCCAATGCCAGAGCTTA AGCTGTCAATTTCATTCCCCAATATGACATCAAATGGTTACCCTGTGCTGTACCCAACTGGATTGTCATCTTCTG CTGACCATCTCAAACGAGGCACAATTCTGGACTGCAATACATGTAAATTTGCTACCATCACATGTAATCTCACTT CTTCTGACATCAGCCAAGTCAATGTTTCGCTTATCTTGTGGAAACCAACTTTTATAAAATCATATTTTTCCAGCT

### 1716/6881 FIGURE 1588B

TAAATCTTACTATAAGGGGAGAACTTCGGAGTGAAAATGCATCTCTGGTTTTAAGTAGCAGCAATCAAAAAAAGAG AGCTTGCTATTCAAATATCCAAAGATGGGCTACCGGGCAGAGTGCCATTATGGGTCATCCTGCTGAGTGCTTTTG CCGGATTGTTGCTGTTAATGCTCCTCATTTTAGCACTGTGGAAGATTGGATTCTTCAAAAGACCACTGAAAAAGA AAATGGAGAAATGAAATATTTTATGAAAGAAATAATAACAATTATTCAATAATCTATCCTCAGGTTTGCCTCAA ATATGTGACAAGAAATGTATAATTCATGACATAGTCATGTAACTATGTAATCCATCAGGGATTCATTACTTGGAA AATGACAGGTCATGCATTATCCAAAAACAATACCAAAAAGACATATTTTATAAAATGACAAAAAATATTTTACAT AAATCACCATCCAAAATATTTAAGGAATATATAAAAAGATTTTTATGATCATAGAAACATCTATTTTCAAAACAA TATAAATTAAGCTTTTCCCCTTGATTCCTGTTGGATATCCATGTTCAGCATGACAGTCAGCACTCGTAAATGCCA AGAAAAGAATTACCTGAAAAAGATCATTTCTCCCTATTCAAATGAGAATATTTTCCCTTGGTAGAATCCATATAC AATATGGATTGAAAATTAAGTCACCAAGAATACATTTAGCATCTTTGTGTTGGGTTCTATACCTAAAAATTTTCC CTCCCTGCCCAAGGTGATTGGAAAGTACTGCAATTGAGCTAAAATTTTATCTAGGATGGAAAATCAGGATAGACT CGTTTAAAAACAAGTATATTAAATGGGTTAAATTAAGCTTTTACAGAACATGCTTAATTTTGATATTGAGCTCTA AATGCAAAACTCTTTTATACTGAAAAAACACTTAAAGTAGTTTTGTGTGGCATCACAGTGATTTGTCATGAAAAAG CCATATATGGGGGACATGCTAAAATGGCTTCTGAATGAAATACGACAGCAGAGAAAGATGCCACTGAAATGCTGA CCAACCACTCCTTATTTTTTTTGAAAAGACAATTTTCCATTTCAGTATTACATTTTACCAAGAAGTCACTGCTT TTTAGGTGTGTTGCATCAATATTTAAATAAAATCCCAGAAATGTATTTTAAAGAATTTCAGGTTTGAAAACTCAA ACCAACAGGAAGATATCACACCTTTGTATGTGCTTCTTTGTTCTTGAAGTAGTCATTATGGTTCATTGGAATCTA GAACTACTGCTGTAAAGTTTGCTGACATTTCTGCAACAACATTTCTCCATCTGATTTACCAGAACCTGTAACAAG ACCAGAACATGTATTCATCCAGAAACTCCTGGGCTCTGCTTTGTTCAAAGAGGAGCAAATCCACATAGAAATTAA ATGTTATAAATTTATTTTTTAAACTAATTTCCAAAGAATTTAGCTGAAGACTCAGAGTCAGCCTACCTCTTGAC TCTCCACATCCGCATCTAAGATCCTGAAGGCCAAAGGAATGCGCCTGTGGGATGCCAAAGCCATCAGTAGCTGGA AGAAAGAATACCTCTTTCTAGAGGTTTGGTGTCCTCTTGCTGGCCTGTCATTATTTTGGAAATACGCGCTTTTTGGA AGGGTTTCTCTTATTCAGAGTTACCATGTTGCACACCCCCAGTGCTCAGCCTGCCCAGAAGCCCTTCTCTGATCT CAGCAAGATCTTAGTAGTAAAGCTAACGGATCCATTGAAATTCATACTCAGCATCTGTGACTACTAGACAAAGCC CATTTACTGAACCATAAGTGTGCACTTTTAAACTAAATTGTTAACTGAAAGGGAAAAAATAGAAATGAGGGCATT TTGAAGTTTTTAGAAAAGAGAGAGAGAGCTGTTGGCCAGATCAAAGAGATACTTATAAGCCCGGCACAATTTTTA ACATAAGTCATTCCTGGCTATTAAGTAAAATATTTCATGAACCAGAAGTCCTGTTTCTCTAATATTATAATTTGT TGAGGTTTGTGTGTGTGTGTGTGTGCATGTGCAGACACATGTACACATATAAATTGAATACAAAAATAGCTCTAT AACACCAAAAAACAGAGTTTACAGAAAATAAACACAAAAGCTATATCTGCAAGACAAGTTTGATTCATCTAGTTT CATATAGTTTCATATAGTTTCATTTTATTAATATTTAGGTTTAACTTATAGTTCTGCAATTATTTAAAAAAACAA GTACAGAGCGTTTGATTAAAAAAAGTCAACAAATGTTTCAAAACAGCTTTGTACAAATGTTATAAAACATATTTA ATGATTAAGAAATGTACTAGACTCTATCATTTACTTTTAAAACATTTAATTAGAAAAACAGGTGATATTTAAGAC TATTTATAAACTTATTGGCCAAATTGCCAAAAA

MAPRPRARPGVAVACCWLLTVVLRCCVSFNVDVKNSMTFSGPVEDMFGYTVQQYENEEGKWVLIGSPLVGQPKNR
TGDVYKCPVGRGESLPCVKLDLPVNTSIPNVTEVKENMTFGSTLVTNPNGGFLACGPLYAYRCGHLHYTTGICSD
VSPTFQVVNSIAPVQECSTQLDIVIVLDGSNSIYPWDSVTAFLNDLLERMDIGPKQTQVGIVQYGENVTHEFNLN
KYSSTEEVLVAAKKIVQRGGRQTMTALGIDTARKEAFTEARGARRGVKKVMVIVTDGESHDNHRLKKVIQDCEDE
NIQRFSIAILGSYNRGNLSTEKFVEEIKSIASEPTEKHFFNVSDELALVTIVKTLGERIFALEATADQSAASFEM
EMSQTGFSAHYSQDWVMLGAVGAYDWNGTVVMQKASQIIIPRNTTFNVESTKKNEPLASYLGYTVNSATASSGDV
LYIAGQPRYNHTGQVIIYRMEDGNIKILQTLSGEQIGSYFGSILTTTDIDKDSNTDILLVGAPMYMGTEKEEQGK
VYVYALNQTRFEYQMSLEPIKQTCCSSRQHNSCTTENKNEPCGARFGTAIAAVKDLNLDGFNDIVIGAPLEDDHG
GAVYIYHGSGKTIRKEYAQRIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMN
FEPNKVNIQKKNCHMEGKETVCINATVCFDVKLKSKEDTIYEADLQYRVTLDSLRQISRSFFSGTQERKVQRNIT
VRKSECTKHSFYMLTSMTFRTL

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# FIGURE 1590

GAAACCGGGCCCCCCCCTTCCTGGCCTGCATTCCCATCCCCTCTCCCGGGGCGGAGGTGAGGACCTCCTTGGT TCCTTTGGTTCTGTCAGTGAGCCCCTTCCTTGGCCATGAAGCTCGTGAGGAAGAACATCGAGAAGGACAATGCGG GCCAGGTGACCCTGGTCCCCGAGGAGCCTGAGGACATGTGGCACACTTACAACCTCGTGCAGGTGGGCGACAGCC TGCGCGCCTCCACCATCCGCAAGGTACAGACAGAGTCCTCCACGGGCAGCGTGGGCAGCAACCGGGTCCGCACTA  ${\tt CCCTCACTCTGCGTGGAGGCCATCGACTTCGACTCTCAAGCCTGCCAGCTGCGGGTTAAGGGGGACCAACATCC}$ AGAAGCAGTGGGATAGTGTGGTACTGGAGCGCATCGAGCAGGCCTGTGACCCAGCCTGGAGCGCTGATGTGGCGG  $\tt CTGTGGTCATGCAGGAAGGCCTCGCCCATATCTGCTTAGTCACTCCCAGCATGACCCTCACTCGGGCCAAGGTGG$ AGGTGAACATCCCTAGGAAAAGGAAAGGCAATTGCTCTCAGCATGACCGGGCCTTGGAGCGGTTCTATGAACAGG TGGTCCAGGCTATCCAGCGCCACATACACTTTGATGTTGTAAAGTGCATCCTGGTGGCCAGCCCAGGATTTGTGA  ${\tt GGGAGCAGTTCTGCGACTACCTGTTTCAACAAGCAGTGAAGACCGACAACAAACTGCTCCTGGAAAACCGGTCCA}$ AATTTCTTCAGGTACATGCCTCCTGGGACACAAGTACTCCCTGAAAGAGGCCCCTTTGTGACCCTACTGTGGCTA GCCGCCTTTCAGACACTAAAGCTGCTGGGGAAGTCAAAGCCTTGGATGACTTCTATAAAATGTTACAGCATGAAC  $\tt CGGATCGAGCTTTCTATGGACTCAAGCAGGTGGAGAAGGCCAATGAAGCCATGGCAATTGACACATTGCTCATCA$ GCGATGAGCTCTTCAGGCATCAGGATGTAGCCACACGGAGCCGGTATGTGAGGCTGGTGGACAGTGTGAAAGAGA ATGCAGGCACCGTTAGGATATTCTCTAGTCTTCACGTTTCTGGGGAACAGCTCAGCCAGTTGACTGGGGTAGCTG AACTTAAAATTGAGACAATCTTGTGTTTCCTAAACTGTTACAGTACATTTCTCAGCATCCTTGTGACAGAAAGCT GCAAGAATGGCACTTTTTGATTCATACAGGGATTTCTTATGTCTTTGGCTACACTAGATATTTTTGTGATTGGCAA GACATGTATTTAAACAATAAACTA

GCGCGCGCTCCGCTGGGAAGCCGAGACCCGGGTGGCGGGACAAGACTTGCTTCCCGGCCACGCGCGCCTCGGCCGG CCGTGGGGCGGGCATAGGCCGTGACGTGATGTCGCGTATCGAGTCTCCGCCCCCTTCCCGCCTCCCCGTATATA AGACTTCGCCGAGCGCTCTCACTCGCACAAGTGGACCGGGGTGTTGGGTGCTAGTCGGCACCAGAGGCAAGGGTG CGAGGACCACGGCCGGGCTGGACGTGTGACCGCGCCTAGGGGGGGCAGCGGGCAGTGCGGGGCGAAGGCGAC CATGGAGCTTTTGCGGACTATCACCTACCAGCCAGCCGCCAGCACCAAAATGTGCGAGCAGGCGCTGGGCAAGGG TTGCGGAGCGGACTCGAAGAAGAAGCGGCCGCCGCAGCCCCCGAGGAATCGCAGCCACCTCAGTCCCAGGCGCA AGTGCCCCGGCGGCCCCTCACCACCACCACCACTCGCACTCGCGGGCCGGAGATCTCGCGGATTATCGTCGA CCCCACGACTGGGAAGCGCTACTGCCGGGGCAAAGTGCTGGGAAAGGGTGGCTTTGCAAAATGTTACGAGATGAC AGATTTGACAAATAACAAAGTCTACGCCGCAAAAATTATTCCTCACAGCAGAAGTAGCTAAACCTCATCAAAGGGA AAAGATTGACAAAGAAATAGAGCTTCACAGAATTCTTCATCATAAGCATGTAGTGCAGTTTTACCACTACTTCGA GGACAAAGAAACATTTACATTCTCTTGGAATACTGCAGTAGAAGGTCAATGGCTCATATTTTGAAAGCAAGAAA GGTGTTGACAGAGCCAGAAGTTCGATACTACCTCAGGCAGATTGTGTCTGGACTGAAATACCTTCATGAACAAGA AATCTTGCACAGAGATCTCAAACTAGGGAACTTTTTTATTAATGAAGCCATGGAACTAAAAGTTGGGGACTTCGG AGTCCTCAACAAACAAGGACATGGCTGTGAATCAGACATTTGGGCCCTGGGCTGTATATGTATACAATGTTACT AGGGAGGCCCCCATTTGAAACTACAAATCTCAAAGAAACTTATAGGTGCATAAGGGAAGCAAGGTATACAATGCC GTCCTCATTGCTGGCTCCTGCCAAGCACTTAATTGCTAGTATGTTGTCCAAAAACCCAGAGGATCGTCCCAGTTT GGATGACATCATTCGACATGACTTTTTTTTGCAGGGCTTCACTCCGGACAGACTGTCTTCTAGCTGTTGTCATAC AGTTCCAGATTTCCACTTATCAAGCCCAGCTAAGAATTTCTTTAAGAAAGCAGCTGCTGCTCTTTTTGGTGGCAA AAAAGACAAAGCAAGATATATTGACACACATAATAGAGTGTCTAAAGAAGATGAAGACATCTACAAGCTTAGGCA TGATTTGAAAAAGACTTCAATAACTCAGCAACCCAGCAAACACAGGACAGATGAGGAGCTCCAGCCACCTACCAC CACAGTTGCCAGGTCTGGAACACCCGCAGTAGAAAACAAGCAGCAGATTGGGGATGCTATTCGGATGATAGTCAG AGGGACTCTTGGCAGCTGTAGCAGCAGCAGTGAATGCCTTGAAGACAGTACCATGGGAAGTGTTGCAGACACAGT GGCAAGGGTTCTTCGGGGATGTCTGGAAAACATGCCGGAAGCTGATTGCATTCCCAAAGAGCAGCTGAGCACATC ATTTCAGTGGGTCACCAAATGGGTTGATTACTCTAACAAATATGGCTTTGGGTACCAGCTCTCAGACCACACCGT CGGTGTCCTTTTCAACAATGGTGCTCACATGAGCCTCCTTCCAGACAAAAAAACAGTTCACTATTACGCAGAGCT TGGCCAATGCTCAGTTTTCCCAGCAACAGATGCTCCTGAGCAATTTATTAGTCAAGTGACGGTGCTGAAATACTT TTCTCATTACATGGAGGAGAACCTCATGGATGGTGGAGATCTGCCTAGTGTTACTGATATTCGAAGACCTCGGCT CTACCTCCTTCAGTGGCTAAAATCTGATAAGGCCCTAATGATGCTCTTTAATGATGGCACCTTTCAGGTGAATTT CTACCÁTGATCATACAAAAATCATCATCTGTAGCCAAAATGAAGAATACCTTCTCACCTACATCAATGAGGATAG GATATCTACAACTTTCAGGCTGACAACTCTGCTGATGTCTGGCTGTTCATCAGAATTAAAAAATCGAATGGAATA TGCCCTGAACATGCTCTTACAAAGATGTAACTGAAAGACTTTTCGAATGGACCCTATGGGACTCCTCTTTTCCAC TGTGAGATCTACAGGGAACCCAAAAGAATGATCTAGAGTATGTTGAAGAAGATGGACATGTGGTGGTACGAAAAC AATTCCCCTGTGGCCTGCTGGACTGGGTGGAACCAGAACAGGCTAAGGCATACAGTTCTTGACTTTGGACAATCC AAGAGTGAACCAGAATGCAGTTTTCCTTGAGATACCTGTTTTAAAAGGTTTTTCAGACAATTTTGCAGAAAGGTG CATTGATTCTTAAATTCTCTCTGTTGAGAGCATTTCAGCCAGAGGACTTTGGAACTGTGAATATACTTCCTGAAG GGGAGGGAGGGAGGGAGCTCCCATGTTGTTTAAAGGCTGTAATTGGAGCAGCTTTTGGCTGCGTAACTGTGA ACTATGGCCATATATATTTTTTTTCATTAATTTTTGAAGATACTTGTGGCTGGAAAAGTGCATTCCTTGTTAAT AACCGTTGGCAATAAAGAGTATGAAAACGC

 $\label{thm:convergence} $$ \begin{align*} MEGITAVTVNQSLLNSLNWRWTPASRRPHPGEEPDQDTQQQVCLLHRQGTVPGAAEQDAGDQLEPPAAGEDGSEQ\\ HGQHEKLKLEAELGNMQGLLEDFKNKYEDEINKRTGMENEFFLIKKDVDKAYMTRQLYEEEIQELQSQISDTSVV\\ LSMDNSRSLDIRGELADKDANAKLSELEAALQWTKQDMGGSCLLEGEESRLESGMQNMSIRTKTTSGYAGGLSST\\ YGGLTSPGLSYGLGSSFGSGAGSCAFSRTCSIRAMIVKKIETHDGKLVSESSDVLLK\\ \end{align*}$ 

WO 2004/030615 PCT/US2003/028547

### 1724/6881 FIGURE 1596

CTCTGTCCCTCACTCGCCGCCGACAACCTGTCTCGCCGCGCGCATGCCCTGCAGCCGCCCCACAGAAATGCTTCG GTTACCCACAGTCTTTCGCCAGATGAGACCAGTGTCCAGGGTACTGGCTCCTCATCTCACTCGAGCTTATGCCAA AGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAAGGTGTAGACCTTTTAGCCGATGCTGTGGCCGT TACAATGGAGCCAAAGGGAAGAACAGTGATTATTGAGCAGAGCTGGGGAAGTCCCAACGTAACAAAAGATGGTGT GACTGTTGCAAAGTCAATTGACTTGAAGGATAAATATAAAAACATTGGAGCTAAACTTGTTCAAGATGTTGCCAA CCAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATCAGGAGAGGTGTGATGTTAGCTGTTGATGCTGTAATTGC TGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAAATTGCACAGGTTGCTATGATTTCTGCAAATGG AGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAAGGTTGGAAGAAAGGGTGTCATCACAGTAAAGGA TATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCCTATGTTCTGTTGAGTGAAAAGAAATTTCTAG TGTCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCACCATAAGCCTTTGGTGATAATCGCTGAAGATGT TGATGGAGAAGCTCTAAGTACACTCATCTTGAATAGGCTAAAGGTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCC AGGGTTTGGTGACAATAGAAAGAACCAACTTAAAGATATGGCTATTGCTACTGGTGGTGCAGTGTTTGGAGAAGA GGGGTTGACCCTGAATCTTGAAGATGTTCAGCCTCATGACTTAGGAAAAGTTGGAGAGGTCATTGTGACCAAAGA CGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAACTTGAAAAACGTATTCAAGAAATCATTGGGCAGTT ATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGAT

GCGGAACGGCTGTTGGTTCTGCTGGTTGTAGGTCCTTGGCTGGTCGGGCCTCCGGTGTTCTGCTTCTCCCCGCT GAGCTGCTGCCTGGTGAAGAGGAAGCCATGCCCCCGAGTCACCAGGAACTCGAAAATTAATGCTGAAAATAAG GCGAAGATCAACATGGCAGGCGCAAAGCGCGTTCCTACGGCCCCTGCTGCAACCTCCAAGCCCGGACTGAGGCCA AAACCTTCAGCTACTGGAAAAGTCATTGATAAAAAACTACCAAAACCTCTTGAAAAGGTACCTATGCTGGTGCCA GTGCCAGTGTCTGAGCCAGTGCCAGAGCCAGAACCTGAGCCAGAACCTGAGCCTGTTAAAGAAGAAAAACTTTCG CCTGAGCCTATTTTGGTTGATACTGCCTCTCCAAGCCCAATGGAAACATCTGGATGTGCCCCTGCAGAAGAAGAC CTGTGTCAGGCTTTCTCTGATGTAATTCTTGCAGTAAATGATGTGGATGCAGAAGATGGAGCTGATCCAAACCTT CTACTGGGTCGGGAAGTCACTGGAAACATGAGAGCCATCCTAATTGACTGGCTAGTACAGGTTCAAATGAAATTC AGGTTGTTGCAGGAGACCATGTACATGACTGTCTCCATTATTGATCGGTTCATGCAGAATAATTGTGTGCCCAAG TCTCAAATTGCAGCAGGAGCTTTTTGCTTAGCACTGAAAATTCTGGATAATGGTGAATGGACACCAACTCTACAA CATTACCTGTCATATACTGAAGAATCTCTTCTTCCAGTTATGCAGCACCTGGCTAAGAATGTAGTCATGGTAAAT CAAGGACTTACAAAGCACATGACTGTCAAGAACAAGTATGCCACATCGAAGCATGCTAAGATCAGCACTCTACCA  $\texttt{CAGCTGAATTCTGCACTAGTTCAAGATTTAGCCAAGGCTGTGGCAAAGGTG} \underline{\textbf{TAA}} \texttt{CTTGTAAACTTGAGTTGGAGT}$ AAA

MALRVTRNSKINAENKAKINMAGAKRVPTAPAATSKPGLRPRTALGDIGNKVSEQLQAKMPMKKEAKPSATGKVI DKKLPKPLEKVPMLVPVPVSEPVPEPEPEPEPEVKEEKLSPEPILVDTASPSPMETSGCAPAEEDLCQAFSDVI LAVNDVDAEDGADPNLCSEYVKDIYAYLRQLEEEQAVRPKYLLGREVTGNMRAILIDWLVQVQMKFRLLQETMYM TVSIIDRFMQNNCVPKKMLQLVGVTAMFIASKYEEMYPPEIGDFAFVTDNTYTKHQIRQMEMKILRALNFGLGRP LPLHFLRRASKIGEVDVEQHTLAKYLMELTMLDYDMVHFPPSQIAAGAFCLALKILDNGEWTPTLQHYLSYTEES LLPVMQHLAKNVVMVNQGLTKHMTVKNKYATSKHAKISTLPQLNSALVQDLAKAVAKV

GCTGGCAAGCGCTTCCTGCGCAGCGCCTAGGCGACCTGGAGTTTGTGACGCTGTGATGGTCTAGAGGCTGGAGAT TCCTCAAGCGTTTTCTTATAAGGCTAAAAATTCACAAAGCATATATCAATGAATCAGGAGGATCTAGATCCGGA TAGTACTACAGATGTGGGAGATGTTACAAATACTGAAGAAGAACTTATTAGAGAATGTGAAGAAATGTGGAAAAGA TATGGAAGAATGTCAGAATAAATTATCACTTATTGGAACTGAAACACTCACCGATTCAAATGCTCAGCTATCATT GACTGAAGACGTTCTCATAACATTAGGAAAAGAAGATCCCAAAAGCTGAGACAAGATCTTGAAATGGTACTGTC CACTAAGGAGTCAAAGAATGAAAAGTTAAAGGAAGACTTAGAAAGGGAACAACGGTGGTTGGATGAACAGCAACA GATAATGGAATCTCTTAATGTACTACACAGTGAATTGAAAAATAAGGTTGAAACATTTTCTGAATCAAGAATCTT TAATGAACTGAAAACTAAAATGCTTAATATAAAAGAATATAAGGAGAAACTCTTGAGTACCTTGGGCGAGTTTCT AGAAGACCATTTTCCTCTGCCTGATAGAAGTGTTAAAAAGAAAAAGAAAAACATTCAAGAATCATCTGTAAACCT GATAACACTGCATGAAATGTTAGAGATTCTTATAAATAGATTATTTGATGTTCCACATGATCCATATGTCAAAAT TAGTGATTCCTTTTGGCCACCTTATGTTGAGCTGCTGCTGCGTAATGGAATTGCCTTGAGACATCCAGAAGATCC AACCCGAATAAGATTAGAAGCTTTCCATCAG<u>TAA</u>AAGGATGTTTTCTTTTTTCACACAGTAAAAATTCTTATCAT TCAAGGATATTGGAACCACAGGACTATTTGGATAAAAAACATTATTTGCAAATTAATGCGCATAGGCCATCTTAC AGTGTTTTAAACTATATGGATAAGAATGCAGGTAGATAATATTCTAGGCATAAAACATTTAATGTACCTTACCTC ATGCAATATTCTTTGGATTCTTTGTTGATTTATGATATTGCTAATATATTTTCTTAAAATATATAACAATAT CTTTTATGCATTTTGAGTTCCAGCTGGTGCTTCTTTATATTTAGAAATTATAATGGGAAGGTCATTTAATTTACA GATGGTTTTAAAATTGAGGTAATATCTGAGGTGGCATAATTTAAAAAATATTTAGCAAATTTGTTTCATATATACT GTCTTATTTCTAGATTTGTTTAAAATTGGAATATGAAAAACTAATGGATAAAGCTAGCATAAAATTGATATTTTA GTTTGTATTATTAATATATCATGTTACCTTATATATTAATCTACTCTTGATTCTGCTAATTATTACCAACAAAAT 

 $\label{thm:conventive} $$ $ MNQEDLDPDSTTDVGDVTNTEEELIRECEEMWKDMEECQNKLSLIGTETLTDSNAQLSLLIMQVKCLTAELSQWQ $$ KKTPETIPLTEDVLITLGKEEFQKLRQDLEMVLSTKESKNEKLKEDLEREQRWLDEQQQIMESLNVLHSELKNKV $$ ETFSESRIFNELKTKMLNIKEYKEKLLSTLGEFLEDHFPLPDRSVKKKKKNIQESSVNLITLHEMLEILINRLFD $$ VPHDPYVKISDSFWPPYVELLLRNGIALRHPEDPTRIRLEAFHQ$ 

GCAGGAAGATGGCGGCGGTAGCGGAGGTGTGAGTGGACGCGGGACTCAGCGGCCGGATTTTCTCTTCCCTTCTTT TCCCTTTTCCTTCCCTATTTGAAATTGGCATCGAGGGGGCTAAGTTCGGGTGGCAGCGCCGGGCGCAACGCAGGG GCTCGGTGTCAGGCGCGGCGGCGGCGGGGGGGGGGGGGCGGACTTCGTCCCTCCTCCTGCTCCCCCCACACCGGAGCGG GCACTCTTCGCTTCGCCATCCCCGACCCTTCACCCCGAGGACTGGGCGCCTCCTCCGGCGCAGCTGAGGGAGCG  $\tt GGGGCCGGTCTCCTGGTTGTCGAGCCTCC{\color{red} ATC} TCGGATAATCAGAGCTGGAACTCGTCGGGCTCGGAGGAG$ GATCCAGAGACGGAGTCTGGGGCCGCCTGTGGAGCGCTGCGGGGTCCTCAGTAAGTGGACAAACTACATTCATGGG  ${\tt TGGCAGGATCGTTGGGTAGTTTTGAAAAATAATGCTCTGAGTTACTACAAATCTGAAGATGAAACAGAGTATGGC}$ TGCAGAGGATCCATCTGTCTTAGCAAGGCTGTCATCACACCTCACGATTTTGATGAATGTCGATTTGATATTAGT GTAAATGATAGTGTTTGGTATCTTCGTGCTCAGGATCCAGATCATAGACAGCAATGGATAGATGCCATTGAACAG CACAAGACTGAATCTGGATATGGATCTGAATCCAGCTTGCGTCGACATGGCTCAATGGTGTCCCTGGTGTCTGGA GCAAGTGGCTACTCTGCAACATCCACCTCTTCATTCAAGAAAGGCCACAGTTTACGTGAGAAGTTGGCTGAAATG GAAACATTTAGAGACATCTTATGTAGACAAGTTGACACGCTACAGAAGTACTTTGATGCCTGTGCTGATGCTGTC TCTAAGGATGAACTTCAAAGGGATAAAGTGGTAGAAGATGATGAAGATGACTTTCCTACAACGCGTTCTGATGGT GACTTCTTGCATAGTACCAACGGCAATAAAGAAAAGTTATTTCCACATGTGACACCAAAAGGAATTAATGGTATA GACTTTAAAGGGGAAGCGATAACTTTTAAAGCAACTACTGCTGGAATCCTTGCAACACTTTCTCATTGTATTGAA CTAATGGTTAAACGTGAGGACAGCTGGCAGAAGAGACTGGATAAGGAAACTGAGAAGAAAAGAAGAACAGAGGAA GCATATAAAAATGCAATGACAGAACTTAAGAAAAAATCCCACTTTGGAGGACCAGATTATGAAGAAGGCCCTAAC TCACAGAGTGAAAAGGTGAGATTACATTGGCCTACATCCTTGCCCTCTGGAGATGCCTTTTCTTCTGTGGGGACA  ${\tt CATAGATTTGTCCAAAAGCCCTATAGTCGCTCTTCCTCCATGTCTTCCATTGATCTAGTCAGTGCCTCTGATGAT}$ GTTCACAGATTCAGCTCCCAGGTTGAAGAGATGGTGCAGAACCACATGACTTACTCATTACAGGATGTAGGCGGA GATGCCAATTGGCAGTTGGTAGAAGAAGAAGGAAATGAAGGTATACAGAAGAAGAAGAAAAAATGGGATT GTTCTGGATCCTTTAAAAGCTACCCATGCAGTTAAAGGCGTCACAGGACATGAAGTCTGCAATTATTTCTGGAAT GTTGACGTTCGCAATGACTGGGAAACAACTATAGAAAACTTTCATGTGGTGGAAACATTAGCTGATAATGCAATC ATCATTTATCAAACACACAAGAGGGTGTGGCCTGCTTCTCAGCGAGACGTATTATATCTTTCTGTCATTCGAAAG ATACCAGCCTTGACTGAAAATGACCCTGAAACTTGGATAGTTTGTAATTTTTCTGTGGATCATGACAGTGCTCCT CTAAACAACCGATGTGCCGTGCCAAAATAAATGTTGCTATGATTTGTCAAACCTTGGTAAGCCCACCAGAGGGA AACCAGGAAATTAGCAGGGACAACATTCTATGCAAGATTACATATGTAGCTAATGTGAACCCTGGAGGATGGGCA CCAGCCTCAGTGTTAAGGGCAGTGGCAAAGCGAGAGTATCCTAAATTTCTAAAACGTTTTACTTCTTACGTCCAA GAAAAAACTGCAGGAAAGCCTATTTTGTTC<u>TAG</u>TATTAACAGGTACTAGAAGATATGTTTTATCTTTTTTAACT TTATTTGACTAATATGACTGTCAATACTAAAATTTAGTTGTTGAAAGTATTTACTATGTTTTTT

MSDNQSWNSSGSEEDPETESGPPVERCGVLSKWTNYIHGWQDRWVVLKNNALSYYKSEDETEYGCRGSICLSKAV
ITPHDFDECRFDISVNDSVWYLRAQDPDHRQQWIDAIEQHKTESGYGSESSLRRHGSMVSLVSGASGYSATSTSS
FKKGHSLREKLAEMETFRDILCRQVDTLQKYFDACADAVSKDELQRDKVVEDDEDDFPTTRSDGDFLHSTNGNKE
KLFPHVTPKGINGIDFKGEAITFKATTAGILATLSHCIELMVKREDSWQKRLDKETEKKRRTEEAYKNAMTELKK
KSHFGGPDYEEGPNSLINEEEFFDAVEAALDRQDKIEEQSQSEKVRLHWPTSLPSGDAFSSVGTHRFVQKPYSRS
SSMSSIDLVSASDDVHRFSSQVEEMVQNHMTYSLQDVGGDANWQLVVEEGEMKVYRREVEENGIVLDPLKATHAV
KGVTGHEVCNYFWNVDVRNDWETTIENFHVVETLADNAIIIYQTHKRVWPASQRDVLYLSVIRKIPALTENDPET
WIVCNFSVDHDSAPLNNRCVRAKINVAMICQTLVSPPEGNQEISRDNILCKITYVANVNPGGWAPASVLRAVAKR
EYPKFLKRFTSYVQEKTAGKPILF

AGTACAATCTGCTGCCCAGGACCTGGACATTGACAGATAAAATGAAGTGGGTCAGTTAACTACAGAGGGAAGAAT ATGAAGAACTGCTTCATTATGCTATAGTGACTCCAAATATTGAACCCTGTGCTTCACAGTCATCTCATCCTAAGG GAGAATTGGTGCCAGATGTCAGAATTTCTACAATTCATGATATTCTTCATAGTCAAGGAAATAACTCTGAAGTAA GAGAAACTGCAATAGAAGTTGGAAAAGGATGTGATTTCCATATTTCAAGTCATTCAAAGACAGATGCTACAACTT TTCTTTTATTCAGAGTCATCACCAGTGTTATCGCCAAGGAAGCCTTCTCACCCAGTCATGGATTTTTTCAGTTCA CATCTTTTAGCTGACTCTTCCTCACCAGCAACAAATTCTAGTCATACAGATGCCCATGAAATACTTGTGAGCGAT TTTCTTGTTTCTGATGAAAACCTTCAGAAGATGGAAAATGTGCTTGATCTTTGGAGTTCAGGTCTTAAGACAAAC ATCATATCTGAACTAAGTAAATGGAGACTTAATTTTATTGACTGGCACCGAATGGAAATGAGAAAAGAGAAAAGA AAACATGCAGCACATTTAAAACAACTGTGTAATCAGATCAATGAATTGAAGGAGCTGCAAAAAACCTTTGAAATC ATGAGAACATTCTTCCACTGGCGAATCGGCCATGTCAGAGCCAGACAGGATGTTTATGAAGGTAAACTAGCTGAC CAGTACTACCAGAGAACTTTACTGAAGAAAGTCTGGAAAGTCTGGCGTTCCGTAGTGCAAAAGCAGTGGAAAGAT GTGGTAGAAAGAGCTTGTCAAGCAAGAGCTGAAGAAGTTTGTATCCAGATTTCCAATGATTATGAAGCCAAAGTT GCTATGTTATCTGGAGCTTTGGAAAATGCAAAAGCTGAGATTCAAAGAATGCAACATGAAAAAAGAGCACTTTGAA GATTCCATGAAAAAAGCTTTCATGAGGGGTGTATGTGCATTAAATCTTGAAGCCATGACTATATTTCAAAACAGA AATGATGCAGCTCCTCCGATGCCCTTACCAGTTACATCACCACTGCTGCCATCCCCACCAGCCGCCGTCGGAGGA GCCAGCGCGACTGCCGTTCCCTCAGCTGCTTCGATGACTTCTACCAGGGCTGCTTCCGCATCTTCTGTTCACGTT TCTGCACAACAGAAAGCAGGAAGAACTATTACAGCCCGGATCACAGGAAGATGTGATTTTGCTTCAAAAAATAGA ATTAGCAGCAGTTTAGCTATAATGGGAGTTTCTCCTCCCATGAGCTCAGTTGTTGTGGAAAAACATCATCCAGTC ACAGTGCAAACCATTCCTCAAGCAACTGCAGCAAAATATCCCCGGACCATTCATCCTGAAAGTAGTACCTCAGCT TCCAGATCACTTGGAACCAGATCAGCTCACACCCAGTCTCTCACAAGTGTTCATTCCATAAAAGTGGTTGACTAA AGTGAATATGTCCATAGTGGGGTCTTTTAATCCCTCTGGTCTTACCAAGGGTTAGAAGTCTTTTGGTTTTAACTT TTCCATATTGTTAGAACATCATGGAGACATCATGTTCATCTGTTCAAAATTACAAGAGGCTTTTTCAAGCTCTAC тт

MSSDEEKYSLPVVQNDSSRGSSVSSNLQEEYEELLHYAIVTPNIEPCASQSSHPKGELVPDVRISTIHDILHSQG NNSEVRETAIEVGKGCDFHISSHSKTDESSPVLSPRKPSHPVMDFFSSHLLADSSSPATNSSHTDAHEILVSDFL VSDENLQKMENVLDLWSSGLKTNIISELSKWRLNFIDWHRMEMRKEKEKHAAHLKQLCNQINELKELQKTFEISI GRKDEVISSLSHAIGKQKEKIELMRTFFHWRIGHVRARQDVYEGKLADQYYQRTLLKKVWKVWRSVVQKQWKDVV ERACQARAEEVCIQISNDYEAKVAMLSGALENAKAEIQRMQHEKEHFEDSMKKAFMRGVCALNLEAMTIFQNRND AGIDSTNNKKEEYGPGVQGKEHSAHLDPSAPPMPLPVTSPLLPSPPAAVGGASATAVPSAASMTSTRAASASSVH VPVSALGAGSAATAASEEMYVPRVVTSAQQKAGRTITARITGRCDFASKNRISSSLAIMGVSPPMSSVVVEKHHP VTVQTIPQATAAKYPRTIHPESSTSASRSLGTRSAHTQSLTSVHSIKVVD

TTAACATCTTGTGAGCAGCCCTTTGGCTGTGAAAATGCAAATGACTCAGACTGGCTGCCAAGAGTCACCTGTGAA GCTCAACTGGCACAGGACTCAGGGCTGAGCTCCATTCTTAACTCTCCATCCCATACAGCCAAACAAGCAGAACAC AGGTTGCGCCCAAGGGTTCTGAACCCAGGATGTATAAAGAAGATGGGCCAGCGAGAGCTCACCGGATGCCGCCAG AACCGCGACGCTTTCCAAGGCACGGGCCCCTCTCTCGGGGGCGAACCCATTCCAGGGCGCCCTGCCCTTCACAAAG AAAAGAGAACTCTCCCCGGGGCTCCCGGCGTTCTCCGGGATCGGTCACGTTTCCCAGAATTAAACAGAAAAAG CAGGTGGGGAATGGCAGTGTCCGGCTGAGGGAGGGAGCTGCCACACTGCCTGATCATTCGCGTGGCAGCAGCGGG GAGGAGATCGGCAGCACCTTTGGCCACAGAGCTGCGCCTCTGTCACAAACAGGCAGCGCTGCAGGCGGCCAGAGA TCCACTTCCACAGATTCTCGTGGCCAGGGCAGGGGTGTGTTGTGGTGGGCAGACTGGCCAGGCGACCCTGGCCCA CCATCACCCTCTCTCACAGCCCAGATGCGTTCTCGGGGGCCCCAGGCCTGCACCCGTTTCTTCTCCCGCATCACG GGGCTGGGGCCAGCGCGGGGCGGAGAGGGCTCGGCAGTTCCAAAAGCGCTGAGGCCAGCCTCTCTGCAGGGTGTG GCCGAGTCGGCCGAAGTGCTGCCACCCCGGCTGAGGACTGCCATCAGGCTACAAGGCCACTTTGCCACAACAGGC AGAAAACAAGGAACACTTGGGAATTTACATCTCCTTGTTTGGCCCTTAGACAATGATCAACTTGTATTGGAATAT GAAACCCAGCTCCCTGGCCTGAGTCTGATCAAACTCTCAGGATTTTTAAAAACCCTCAGTGGACAAAAGTCTACT CACGCTGCTTTGGTAGAATTGGACATAGCCAAGGAGCTCATCAGAAAAGGAGCTGCTAGTCACAGGCAGCAACAA ACCCACCTCCACACAGGGATCCACTGTGGGGCTGCAATAACTGCTCCTTCTCTGAGTGATACAGGACATTCTGAG GAAAAGTGGCTGGTGGATGGGCAGTATGTAATGACACAAGCTCATGAGTACAAGCTGAGACATGATGGGAGTCTA CGGGTCCCATCTACACAGCTTGATGCAGCTCTTCCAATTAATGGCCAGTGTCTGGCTGAACTATTATAG



MEGRGYAKEGLKDLATRTPRTPKKKLTSCEQPFGCENANDSDWLPRVTCEAQLAQDSGLSSILNSPSHTAKQAEH RLRPRVLNPGCIKKMGQRELTGCRQNRDAFQGTGPSLGANPFQGALPFTKKRELSPGLPPASPGSVTFPRIKQKK PGSGQVGKRKRGLFGCDMWVEGHKGQVGNGSVRLREGAATLPDHSRGSSGEEIGSTFGHRAAPLSQTRTAIRLQG HFATTGRKQGTLGNLHLLVWPLDNDQLVLEYETQLPGLSLIKLSGFLKTLSGQKSTHAALVELDIAKELIRKGAA SHRQQQTHLHTGIHCGAAITAPSLSDTGHSEEKWLVDGQYVMTQAHEYKLRHDGSLRVPSTQLDAALPINGQCLA ELL

GGGGCGCACAGAGCCAGAGGGGCTTGCGAGCGGCGCTGAGGGACCGCGGGGAGGGGGCGCCGAGCGGCTCCAGC CCGCCCGCTAACCGCCCAGACACAGCGCTCGCCGAGGGTCGCTTGGACCCTGATCTTACCCGTGGGCACCCTG CGCTCTGCCTGCCGCGAAGACCGGCTCCCCGACCCGCAGAAGTCAGGAGAGAGGGTGAAGCGGAGCAGCCCGAGG CGGGGCAGCCTCCCGGAGCAGCCGCGCAGAGCCCGGGACAATGGGGCCGCGGCGGCTGCTGGTGGCCGCC TGCTTCAGTCTGTGCGGCCCGCTGTTGTCTGCCCGCACCCGGGCCCGCAGGCCAGAATCAAAAGCAACAAATGCC ACCTTAGATCCCCGGTCATTTCTTCTCAGGAACCCCAATGATAAATATGAACCATTTTGGGAGGATGAGGAGAAA AATGAAAGTGGGTTAACTGAATACAGATTAGTCTCCATCAATAAAAGCAGTCCTCTTCAAAAAACAACTTCCTGCA TTCATCTCAGAAGATGCCTCCGGATATTTGACCAGCTCCTGGCTGACACTCTTTGTCCCATCTGTGTACACCGGA GTGTTTGTAGTCAGCCTCCCACTAAACATCATGGCCATCGTTGTGTTCATCCTGAAAATGAAGGTCAAGAAGCCG GCGGTGGTGTACATGCTGCACCTGGCCACGGCAGATGTGCTGTTTTGTGTCTGTGCTCCCCTTTAAGATCAGCTAT TACTTTTCCGGCAGTGATTGGCAGTTTGGGTCTGAATTGTGTCGCTTCGTCACTGCAGCATTTTACTGTAACATG TACGCCTCTATCTTGCTCATGACAGTCATAAGCATTGACCGGTTTCTGGCTGTGGTGTATCCCATGCAGTCCCTC TCCTGGCGTACTCTGGGAAGGGCTTCCTTCACTTGTCTGGCCATCTGGGCCTTTGGCCATCGCAGGGGTAGTGCCT CTGCTCCTCAAGGAGCAAACCATCCAGGTGCCCGGGCTCAACATCACTACCTGTCATGATGTGCTCAATGAAACC ACGGTCTGTTATGTGTCTATCATTCGATGTCTTAGCTCTTCCGCAGTTGCCAACCGCAGCAAGAAGTCCCGGGCT TTGTTCCTGTCAGCTGCTGTTTTCTGCATCTTCATCATTTGCTTCGGACCCACAAACGTCCTCCTGATTGCGCAT ATAAGCTGCTGCATCGACCCCCTAATTTACTATTACGCTTCCTCTGAGTGCCAGAGGTACGTCTACAGTATCTTA TGCTGCAAAGAAGTTCCGATCCCAGCAGTTATAACAGCAGTGGGCAGTTGATGGCAAGTAAAATGGATACCTGC TCTAGTAACCTGAATAACAGCATATACAAAAAGCTGTTAACTTAGGAAAAAGGGACTGCTGGGAGGTTAAAAAAGAA CAGATGTACGACTTGCATACCTGCTTTTTATGGGAGCTGTCAAGCATGTATTTTTTGTCAATTACCAGAAAGATAA GTATAGAATAGGCACTTTAAAACACTCTTTCCCCGCACCCCAGCAATTATGAAAATAATCTCTGATTCCCTGATT TAATATGCAAAGTCTAGGTTGGTAGAGTTTAGCCCTGAACATTTCATGGTGTTCATCAACAGTGAGAGACTCCAT AGTTTGGGCTTGTACCACTTTTGCAAATAAGTGTATTTTGAAATTGTTTGACGGCAAGGTTTAAGTTATTAAGAG GTAAGACTTAGTACTATCTGTGCGTAGAAGTTCTAGTGTTTTCAATTTTAAACATATCCAAGTTTGAATTCCTAA AATTATGGAAACAGATGAAAAGCCTCTGTTTTGATATGGGTAGTATTTTTTACATTTTACACACTGTACACATAA TCCGCCCCGATGGAGGACTCCAGGCAGCAGACACATGCCAGGGCCATGTCAGACACAGATTGGCCAGAAACCTT CCTGCTGAGCCTCACAGCAGTGAGACTGGGGCCACTACATTTGCTCCATCCTCCTGGGATTGGCTGTGAACTGAT CATGTTTATGAGAAACTGGCAAAGCAGAATGTGATATCCTAGGAGGTAATGACCATGAAAGACTTCTCTACCCAT CTTAAAAACAACGAAAGAAGGCATGGACTTCTGGATGCCCATCCACTGGGTGTAAACACATCTAGTAGTTGTTCT GAAATGTCAGTTCTGATATGGAAGCACCCATTATGCGCTGTGGCCACTCCAATAGGTGCTGAGTGTACAGAGTGG CACACAAACAAGGCCTGTCAGCTAAAGAAGTTTGAACATTTGGGTTACTATTTCTTGTGGTTATAACTTAATGAA ATAGAATTGACATTGAAATCTAGGAAAATTATTCTATAATTTCCATTTACTTAAGACTTAATGAGACTTTAAAAAG CATTTTTTAACCTCCTAAGTATCAAGTATAGAAAATCTTCATGGAATTCACAAAGTAATTTGGAAATTAGGTTGA AAAGAGCAGGCCAGGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGTGGATCACGAG CGTGGTGGCAGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGACTGGCGTGAACCCAGGAGGCGGA CCTTGTAGTGAGCCGAGATCGCGCCACTGTGCTCCAGCCTGGGCAACAGAGCAAGACTCCATCTC

AAACCTCGCCCAGATTCAGGCGTGTAAACCAGCCGGAGCGGCGGCGGCAGCAGGACCGCCGTGGCGCCTAGAG TAGCGACCCGCGGGGGGCCACGCCGGCGCCGCTGCAGAGACCCGGTGACAGCTGTATGCTTGAAATCTTGGAT ACTGCAGGAACGGAGCAATTTACAGCAATGAGGGATTTATACATGAAAAATGGACAAGGGTTTGCATTAGTTTAT TCCATCACAGCACAGTCCACATTTAACGATTTACAAGACCTGAGAGAACAGATTCTTCGAGTTAAAGACACTGAT TTTTATGACCTAGTGCGGCAAATTAACAGAAAAACTCCAGTGCCTGGGAAGGCTCGCAAAAAGTCATCATGTCAG CTGCTTTAATATACTAAATGCATTGTAGCTCTGAGCCAGGTCTGAAGAACTGTTGCCCAATTCAACAGTGCCAGC ATTCCAACTTTGTTAAACCTACCAACATCTTAAATGGACTTTCCTGTGGTGGTACCCTTTAAGAGGCGGATGAAA GCTACTATATCAGTTTGCACATTCTAATCACTTTCCAGTATCACAAGAGAGATTTTTACTTATATAATAGTCCTA GAGTATGCAGCTGGTAAAACCAGAGGCTACATCCAGTATTACTGCTAAGAGACATTCTTCATCCACCAATGTTGT ACATGTATGAAAATGGTGTACTGTATACTTTAACATGCCCCATACTTTGTATTGGAGAGTACAATAATGTAAATC CTAAAAGCACCACTATTTTAGCATAATAAAAGAAAGTCCAAAGAGCTCCTATATAGACTACTCCAGATAACTTCG CTTCTTTGATACTTGTAGCTTATTGTAATTTTTTTTAAGAAATTCAAGGTCATTATTATTGTACAAAATAAGCGC TTTGATTAACACAGCTATATAGTTTTTTTAATTTTTAATGTCTTAGATTAAAGACGTTGCCTTTAATATCTGTTG TAGTCGTGTGTACAGTGGGGGTCTACAACAAGAAGTGTATATT

 ${\tt MREYKLVVLGSRGVGKSALTVQFVQGIFVEKYDPTIEDSYREQVEVDAQQCMLEILDTAGTEQFTAMRDLYMKNG} \\ {\tt QGFALVYSITAQSTFNDLQDLREQILRVKDTDDIFYDLVRQINRKTPVPGKARKKSSCQLL} \\$ 

# FIGURE 1614

GCTCCGAGAGGAAAATGAGGGCGTGTATAATGGAAGCTGGGGAGGCCGGGGAGAGGTTATTATGACCTGTTGCTC AGAAGCATGGAAAATCTGGGCAGATATTCCTGCTCCAAAACGAGGAGAAATAGTAAGACAGATTGACGATGCCTT GTGGGAGAAGATCCAAGTACTAGGAAGCTTGGTGTCTTTGGAGATGGGGAAAATCTTAGTGGAAGGTGTGGGTGA AGTTCAGGAGTATGTGGATATCTGTGACTATGCTGTTGGTTTATCAAGGATGATTGGAGGACCTATCTTGCCTTC TGAAAGACCTGGCCATGCACTGATTGAGCAGTGGAATCCTGTAGGCCTGGTTGGAATCATCACGGCATTCAATTT  $\verb|CCCTGTGGCAGTGTATGGTTGGAACAACGCCATTGTCATGATCTGTGGAAATGTCTGCCTCTGGAAAGGAGCTCC|$ AACCACTTCCCTCATTAGTGTGGCTGTCACAAAGATAATAGCCAAGGTTCTGGAGGACAACAAGCTGCTTGGTGC AATTTGTTCCTTGACTTGTGGTGGAGCAGATACCGGCACAGCAATGGCCAAAGATGAACGAGTGAACCTGCTGTC CTTCACCGGGAGCACTCAGGTGGGAAAACAGATGGCCCTGATGGTGCAGGAGAGGTTTGGGAGAAGTTTGTTGGA ACTTGGAGGAAACAGTACCATTATTGCCTTTGAAGATGCAGACCTCAGCTTAGTTGTTCCATCAGCTCTCTTCAC TGTAAACAGACTTAAAAAGGCCTACGCACAGATCCGAGTTGGGAACCCATGGGACCCTAATGTTCTCTATGGGCC ACTCCACACCAAGCAGGCAGTGAGCATGTTTCTTGGAGCAGCGGAAGAAGCAAAGAAGAAGGTAGCACAGTGGT  $\verb|CTATGGGGGCAAGGTTATGGATCGCCCTGGAAATTATGTAGAACCGACAATTGTGACAGGTCTTGCCCACGATGC| \\$ ATCCATTGCACACACAGAGACTTTTGCTCCGATTCTGTATGTCTTTAAATTCAAGAATGAAGAAGAGGTCTTTGC ATGGAATACTGAAGTAAAACAGAGACTTTCAAGTAGCAACTTTACCAAAGATCTGGGCAGAATCTTTCGCTGGCT TGGACCTAAAGGATCAGACTGTGGCACTGTAAATGTCAACATTCCAACAAGTGGGGCTGAGATTGGAGGTGCCTT TGGAGGAGAAAGCACTGGTGGTGGCAGGGAATCTGGCAGTGATGCCTGGAAACAGTACATGAGAAGGTCTAC TTGTACTATCAACTACAGTAAAGACTTTCCTCTGGCCCAAGGAATCAAGTTTCAGTAAAGGTGTTTTAGATGAAC ATCCCTTAATTTGAGGTGTTCGGCAGCTGTTTTTGAAGAAGACAAAGAAAATTAAAGTTTTCCTTGAATAAATGC ATTATTATGACTGTGACAGTGACTAATCCCCCTATGACCCCAAAGCCCTGATTAAATCAAAAAGACTCCTTTTTTA AAAATCAAAATAAAATTGTTACAACAT

MEGVEEKKKEVPAVPETLKKKRRNFVELKIKRLRKKFAQKMLRKARRKLIYEKAKHYHKEYRQMYRTEIRVARMA RKAGNFYVPAEPKLAFVIRIRGISAVSPKVRKVLQLLRLRQIFNGTFVKLNKASINMLRIVEPYIAWGYPNLKSV NELIYKRGYGKINKKRIALTDNALIARSLGKYGIICMEDLIHEIYTVGKRFKEANNFLWPFKLSSPRGGMKKKTT HFVEGRDAGNREDQINRLTRRMN

 ${\tt MDLTCDKMCSMVKKWQTMIEAHVDVRTIDGYLLRLFCVGFTKKRNNQIQKTSYAQHQRVRQIRKKMMEIMTREDS} \\ {\tt RQHWKRHRKGLPIYPLHDVFVRKVKMLKKPKFELGKLMELHGEGSSSGKATGDERGAKVERADGFEPPVQESV} \\$ 

CTCCTGAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGCTGAGCTTTGAAACAACTGATGAGAGCCTTG AGGAGCCATTTTGAGCAATGGGGAATGCTCACGGACTGTGTGGTCATGAGAGATCCAAACACCAAGCACCCCAGG GGCTTTGGGTTTGTCACATATGCTACTGTGGAGGAGGTGGATGCAGCCATGAATGCAAGGCCACAAAGGTGGAT GGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCGAGAGAAGATTCTGAAAGACCAGGTGCCCACTTAACTGTGAAA AAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATGATTTTGAACAGTATGGAAAA ATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAAATTTTGACGAC CATGACTCCATGGATAAGATTGTCATTCAGAAATACCATACTGTGAATGGCCACAACTGTGAAGTTAGGAAAGCC CCGTCACAGCAAGAGATGGATAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGT CGTGGAGGTGGTTTCGGTGGGAATGACAACTTTGGTCATGGAGGAAACTTCAGTGGTTGTGGTGGCTTTGGTGGC AGTCATGGTGGTGGTGGATATGGTGGCAGTGGGGATGGCTATAATGGATTTGGTAATGATGGAAGCGATTTTGGA GGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTTGGACCCATGAAGGGAGGAAAT TTTGGAGGCAGAAGCTCTGGCCCTTATGGTGGTGGAGGCCAATACTTTGCAAAACCACAAAACCAAGGTGGCTAT GGCGGTTCCAGTAGCAGCGGTAGCTATGGCAGTGGCAGAAGATTTTAATTAGGAAACAAAGCTTAGCAGGAGCGG AGAGCCAGAGAAGTGACAGGAAGCTACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGG CCTAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATTGGGCAAAAAACTCGAGGACTGTATTTG GTAGATTTTTTTTTGCACCTATGCTGTTGATTGCTAATGTAATAGTCTGATCGTGATGCTGAATAAATGTCTTT TCTTTTTAATGTGCTGTGTAAAGTTAGTCTACTCTGAAGCCATCTTGGTAAATTTCCCCAACAGTGTGAAGTTAG AGAAACCTTGGTGTAGTTGAACTGATAGTTACCGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCCAAGCA AAATCATGGAATTATTGGTTATAAAAGTGATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTAC TAGATAAAATTATAGATGGGAATGAAGCTTGTGTATCATCCATTATCATGTGTAATCAATAAATGATTTAATTCT CTTGAA

MRALRSHFEQWGMLTDCVVMRDPNTKHPRGFGFVTYATVEEVDAAMNARPHKVDGRVVEPKRAVSREDSERPGAH LTVKKIFVGGIKEDTEEHHLRDDFEQYGKIEVIEIMTDRGSGKKRGFAFVNFDDHDSMDKIVIQKYHTVNGHNCE VRKAPSQQEMDSASSSQRGRSGSGNFGGGRGGGFGGNDNFGHGGNFSGCGGFGGSHGGGGYGGSGDGYNGFGNDG SDFGGGGSYNDFGNYNNQSSNFGPMKGGNFGGRSSGPYGGGGQYFAKPQNQGGYGGSSSSGSYGSGRRF

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#### 1749/6881 FIGURE 1621

CAAAGGCTACTAAGTTAATGGTATTTTCTGCACAGAAAATACCATTAACTTAGTAGCCTTTGCTTAAAGGTGGGA
TTAATTCTCCATGAAGTCAGAATGAGACAATAAGCAGCATTAACTTCATAGGCACACAGAACTAGTGCTCAAACT
GCTACCACCCTTTTCAATTGCTATCTTTTGAAAGGCACCACTATTTGTTTTGCTGGGGTCTCGGGTGGACCCTTA
TTCGCTCCGACAAGATGAAAGAAACAATCATGAACCAGGAAAAAACTCGCCAAACTGCAGGCACAAGTGCGCATTG
GTGGGAAAGGAACTGCTCGCAGAAAGAAGAAGAAGGTGGTTCATAGAACAGCCACAGCAGATGACAAAAAACTTCAGT
TCTCCTTAAAGAAGTTAGGGGTAAACAATATCTCTGGTATTGAAGAGGTGAATATGTTTACAAACCAAGGAACAG
TGATCCACTTTAACAACCCTAAAGTTCAGGCATCTTGAGCAGCGAACACTTTCACCATTACAGGCCATGCTGAGA
CGAAGCAGCTGACAGAAATGCTACCCAGCATCTTAAACCAGCTTGGTGCGGATAGTCTGACTAGTTTAAGGAGAC
TGGCCGAAGCTCTGCCCAAACAATCTGTGGATGGAAAAAGCACCACTTGCTACTGGAGAGGATGATGATGAAG
TTCCAGATCTTGTGGAGAATTTTGATGAGGCTTCCAAGAATGAGGCAAACTGAATTGAGTCAACTTCTGAAGATA
AAACCTGAAGAAGTTACTGGGAGCTGCTATTTTATATTATGACTGCTTTTTAAGAAATTCTTGTTTATGGATCTG
ATAAAATCTAGATCTCTAATATTTTTAAGCCCAAGCACCTTAAGTGGGAAATTC
ACAATTCATTCTTTGCAGCTAATTAAGCCGAAGAAGCCTTAAGTGGGAAATTC

MKETIMNQEKLAKLQAQVRIGGKGTARRKKKVVHRTATADDKKLQFSLKKLGVNNISGIEEVNMFTNQGTVIHFN NPKVQASLAANTFTITGHAETKQLTEMLPSILNQLGADSLTSLRRLAEALPKQSVDGKAPLATGEDDDDEVPDLV ENFDEASKNEAN

#### 1754/6881 FIGURE 1626A

CGAGCGCACAGCCCGCCTCCTTCCGCGGCGCCTGCAGTGGCAGGCTTGCTCTGCCCTACCGTGACGCGCTCCGGA GACGCTCTGCGGGTCCTGGACACCGGGTCCGCGGCGTGGGGACGACAGACGGAGGCGAACGCCATCGGTAGCCGG TCCGCGAGCCATCGTTCGGGGCGCAGTCCTCTCCCCGGCTGGCCCTCCTTTCTCCGGGGCATTCGCCACCGCTTC CCTGGGCTGAGACGACCGGTTCGTCGCCTCCTTGCCCGTGACCGTCGCTAGAACTCAGTTGTGCGTTGCGGCCAG TCGCCACTGCTGAGTGGAAACAAAATGTCAGTCAGTGTGCATGAGAACCGCAAGTCCAGGGCCAGCAGCGCCTCC AGTCGCTACTTTGAGGCCATGTTCAGTGGTGGCCTGAAAGAGAGCCAGGACAGTGAGGTCAACTTTGACAATTCC ATCCACCCAGAAGTCTTGGAGCTGCTTGACTATGCGTACTCCTCCCGGGTCATCATCAATGAAGAAAATGCA GAATCGCTCCTGGAAGCTGGTGACATGCTGGAGTTTCAAGACATCCGGGATGCATGTGCAGAGTTCCTGGAAAAG AACCTGCATCCCACCAACTGCCTGGGCATGCTGCTGCTGTCTGATGCACCACCAGTGCACCAAGCTGTACGAACTA TCTTGGAGAATGTGTCTCAGCAACTTCCAAACCATCAGGAAGAATGAAGATTTCCTCCAGCTGCCCCAGGACATG GTAGTGCAACTCTTGTCCAGTGAAGAGCTGGAGACAGAGGATGAAAGGCTTGTGTACGAGTCTGCAATTAACTGG ATCAGCTATGACCTGAAGAAGCGCTATTGCTACCTCCCAGAACTGTTGCAGACAGTAAGGCTGGCACTTCTGCCA GCCATCTATCTCATGGAGAATGTGGCCATGGAGGAACTCATCACCAAGCAGAAAAGAGTAAGGAAATTGTGGAA GAGGCCATCAGGTGCAAACTGAAAATCCTGCAGAATGACGGTGTGGTAACCAGCCTCTGTGCCCGACCTCGGAAA ACTGGCCATGCCCTCTTCCTTCTGGGAGGACAGACTTTCATGTGTGACAAGTTGTATCTGGTAGACCAGAAGGCC AAAGAAATCATTCCCAAGGCTGACATTCCCAGCCCAAGAAAAGAGTTTAGTGCATGTGCGATTGGCTGCAAAGTG TACATTACTGGGGGGGGGGGGTCTGAAAATGGGGTCTCAAAAGATGTCTGGGTTTATGATACCCTGCACGAGGAG TGGTCCAAGGCTGCCCCCATGCTGGTGGCCAGGTTTGGCCATGGCTCTGCTGAACTGAAGCACTGCCTGTATGTG GTTGGGGGGCACACGGCCGAACTGGCTGCCTCCCGGCCTCCCCTCAGTCTCTCTAAAGCAGGTAGAACATTAT TGTGAAAACAGGTGGACTGTACCGGCCACCTGTCCCCAGCCCTGGCGTTACACAGCAGCAGCTGTGCTGGGGAAC GTTGGAGGATACTTTGGCATTCAGCGATGCAAGACTTTGGACTGCTACGATCCAACATTAGACGTGTGGAACAGC ATCACCACTGTCCCGTACTCGCTGATTCCTACTGCATTTGTCAGCACCTGGAAACATCTGCCTTCTTAAATGCAG TACATTCTAAAGAGAGTGAGCATGAGCTCACTCCATCACTCGATGAGATAATATGAGATTTCTACTTCGGAGAGG CCAAGTCTAATGAAGAGAAAAAAAGGAAAAGAAGTTGCAAGACTCGAATAAAATCTGCTGCACCTTGTAAATGCT AATGAACAAACCTGTGATCTAGTCCTTGTCTTGTAATTGTGGATTAATGTCAATGTTAATCAGCCCCTCAAAGGG AGAGAAAAGCTGGACCTTTTCCCTTGCTGTACCATATTCAGCATTTGATTTCCATGGGCCCCACCATTTATGTGT AGAATTTGAAATGGTTGTCACCTCTCTGAGGACAGAGCTTGAAGCCTCCACACCAGCTGCTGCAGAGATTCA CTCTAAGGGGTCTGCTCCCCAGGAACGTTTCTGAACAATGGGGACTTTGTTGGTAGCCATTTGGTAGATGTTCTT ATGCCTGCATGCTGAAACAATGCCTACAGCTGTCTTCACATGTATGGACGTGTGTAATGGTTGTACGTTTTGCA CATTTTGTGGCTGTTGAGATGTGCTTTGCTGCACAAACATGAAAATTTTTGAGTTACAATTTGGAGCATAACTGG AGGGTGGGTTGGGGAGGGTGGATTTTTAAAATGTCAAGACAGGGAAGGATGACAAAATGGAAATTTAAATGACA TCCTAGAGGTAGAGAAACCGTGGAGATCGCTTTTCTCAGACTCACCAACTTTTAATGGGATTTCATGGGGTTTGG TTGTGCTGATAGGGTAAGGGGAGGCTGCTTTCTGCCCTTCTCCCCACTCCCATCTGATTTACTTAATTCAGTCTC AGCTGCTGAAATTTGGAAAGGACCAAATTGCTTTACAGTTTTTTTCTTTGTGTAGTATCTTGAAATCCTGGAAAA AGAATGCTTTGCCATAACCACATTTAATGGGAAAAACGGCAGTATCACAGATGTAAATTAACTCACCAGATTTAC TGGGCCTGAACTCATTCTCTTCTTGCTATATGATTTAGCAAGTTCTAGAAGGTCTCCAAGACAATAATTACATTG GCACAATGTATACTTCAGTGCTCACCCGTAGGCAAATCTCTTTTTAAAAAAACTCTTTTGGTGCACAAGTAACACAT

#### 1755/6881 FIGURE 1626B

TTGGCCACAAAACACCAAAGAATTGTAGGCAGTGGCCCCTATTGAGAAGTTTTCCGGTAGAGTTGGAAATCAGTT GTGAATACATTCTTTGCTAGTTGGAGTGCTTGTTTACTAAGCATGTGCCGTCGTAGGTATTAGTGCTAGTCTCAG ATAGGTGCTTCCCCTGAGGTGCAGGGGAAGACCAAAGTTTGCAACTCGAACTGCTTTCGTCCATGTTTCTCACAT TGCTGTATTTTAGAAAATAGGGGTTAAGACTGATAACAACCTTTTACATTGTGACTGTGTTTGCATTGTCTAATG TGGTTCCTAGATGTGTTCTAAGCAATGCAAATGTCTAATTGTCCCCCAGTGGGCATAGTCAGTGTCGTTTATATT CCAGAGGGAGCTGTGGTAAGGGTTGGGCCCCCAGCCTGTAGGGAACTTTCTGGACTCCCACTCTTTGAATCGATA TAGGCATTTGGTCTCACTACTTGACCATTCTCACCCTGTGAAACGTCCCACACTTTGAAGCAAATACAATTCACA GCACAGTACACAAAAACCTTGGCATAAGACAGAGAAGGTTCTTCTTATTTTGTGGGCTGGTTGCTGTAGAAAC ACATAACAAAGGGCAGCCCTCCACTTCTGGTATAATTGTGTAGCCCCTTTTCTTTGGGCTTGACACCTGTCTTGA ATAAGAGTGATTAGAGCTGCATAATGTCCCTCTTTGGCTATTGACCATGTGGTTCACGTACAAAACTCTGTATA AGTTGAAGGAAAATGTTCATGTTCATATGTACTTGTTTGCTATGACTACATTTTGAGGTTTTGTAAAACTGTTAT TTTTTTTTTCACAATGTGAAACTGAAGGTCAATAAATTATTAGAGATTTTCTCTTC

CTGATCCGGGCCGGGGAAGTCGGGTCCCGAGGCTCCGGCTCGGCAGACCGGCCGAAAGCAGCCGAGCGGCC ATGGAGCTGTGCGGGCTGGGCCTGCCCGGCCGCCCATGCTGCTGGCGCTGCTGTTGGCGACACTGCTGGCGGCG ATGTTGGCGCTGCTGACTCAGGTGGCGCTGGTGGTGCAGGTGGCGGAGGCGGCCCCGAGCGTCTCGGCC AAGCCGGGGCCGGCTGTGGCCCCTGCCGCTCTCGGTGAAGATGACCCCGAACCTGCTGCATCTCGCCCCGGAG AACTTCTACATCAGCCCACAGCCCCAATTCCACGGCGGGCCCCTCCTGCACCCTGCTGGAGGAAGCGTTTCGACGA TATCATGGCTATATTTTTGGTTTCTACAAGTGGCATCATGAACCTGCTGAATTCCAGGCTAAAACCCAGGTTCAG CAACTTCTTGTCTCAATCACCCTTCAGTCAGAGTGTGATGCTTTCCCCAACATATCTTCAGATGAGTCTTATACT TTACTTGTGAAAGAACCAGTGGCTGTCCTTAAGGCCAACAGAGTTTGGGGAGCATTACGAGGTTTAGAGACCTTT AGCCAGTTAGTTTATCAAGATTCTTATGGAACTTTCACCATCAATGAATCCACCATTATTGATTCTCCAAGGTTT TCTCACAGAGGAATTTTGATTGATACATCCAGACATTATCTGCCAGTTAAGATTATTCTTAAAACTCTGGATGCC ATGGCTTTTAATAGTTTAATGTTCTTCACTGGCACATAGTTGATGACCAGTCTTTCCCATATCAGAGCATCACT TTTCCTGAGTTAAGCAATAAAGGAAGCTATTCTTTGTCTCATGTTTATACACCAAATGATGTCCGTATGGTGATT GAATATGCCAGATTACGAGGAATTCGAGTCCTGCCAGAATTTGATACCCCTGGGCATACACTATCTTGGGGAAAA GGTCAGAAAGACCTCCTGACTCCATGTTACAGTAGACAAAACAAGTTGGACTCTTTTGGACCTATAAACCCTACT TTGGGAGGAGATGAAGTGGAATTTAAATGTTGGGAATCAAAATCCAAAAATTCAAGATTTCATGAGGCAAAAAAGGC TTTGGCACAGATTTTAAGAAACTAGAATCTTTCTACATTCAAAAGGTTTTGGATATTATTGCAACCATAAACAAG GGATCCATTGTCTGGCAGGAGGTTTTTGATGATAAAGCAAAGCTTGCGCCGGGCACAATAGTTGAAGTATGGAAA GACAGCGCATATCCTGAGGAACTCAGTAGAGTCACAGCATCTGGCTTCCCTGTAATCCTTTCTGCTCCTTGGTAC TTAGATTTGATTAGCTATGGACAAGATTGGAGGAAATACTATAAAGTGGAACCTCTTGATTTTGGCGGTACTCAG AAACAGAACAACTTTTCATTGGTGGAGAAGCTTGTCTATGGGGAGAATATGTGGATGCAACTAACCTCACTCCA AGATTATGGCCTCGGGCAAGTGCTGTTGGTGAGAGACTCTGGAGTTCCAAAGATGTCAGAGATATGGATGACGCC TATGACAGACTGACAAGGCACCGCTGCAGGATGGTCGAACGTGGAATAGCTGCACAACCTCTTTATGCTGGATAT  ${\tt TGTAACCATGAGAACATG} \underline{{\tt TAA}}{\tt AAAATGGAGGGGAAAAAGGCCACAGCAATCTGTACTACAATCAACTTTATTTTG}$ 

MELCGLGLPRPPMLLALLLATLLAAMLALLTQVALVVQVAEAARAPSVSAKPGPALWPLPLSVKMTPNLLHLAPE
NFYISHSPNSTAGPSCTLLEEAFRRYHGYIFGFYKWHHEPAEFQAKTQVQQLLVSITLQSECDAFPNISSDESYT
LLVKEPVAVLKANRVWGALRGLETFSQLVYQDSYGTFTINESTIIDSPRFSHRGILIDTSRHYLPVKIILKTLDA
MAFNKFNVLHWHIVDDQSFPYQSITFPELSNKGSYSLSHVYTPNDVRMVIEYARLRGIRVLPEFDTPGHTLSWGK
GQKDLLTPCYSRQNKLDSFGPINPTLNTTYSFLTTFFKEISEVFPDQFIHLGGDEVEFKCWESNPKIQDFMRQKG
FGTDFKKLESFYIQKVLDIIATINKGSIVWQEVFDDKAKLAPGTIVEVWKDSAYPEELSRVTASGFPVILSAPWY
LDLISYGQDWRKYYKVEPLDFGGTQKQKQLFIGGEACLWGEYVDATNLTPRLWPRASAVGERLWSSKDVRDMDDA
YDRLTRHRCRMVERGIAAQPLYAGYCNHENM

MEEDEFIGEKTFQRYCAEFIKHSQQIGDSWEWRPSKDCSDGYMCKIHFQIKNGSVMSHLGASTHGQTCLPMEEAF ELPLDDCEVIETAAASEVIKYEYHVLYSCSYQVPVLYFRASFLDGRPLTLKDIWEGVHECYKMRLLQGPWDTITQ QEHPILGQPFFVLHPCKTNEFMTPVLKNSQKINKNVNYITSWLSIVGPVVGLNLPLSYAKATSQDERNVP

# .1761/6881 FIGURE 1632

CTCTTTCGCTCAGGCCCGTGGCGCCGACAGGATGGCAAGTGTCGTGGACTTCGTACTGCTAGGAAGCTCCGTAG
TCACCGACGAGACCAGAAGTGGCATGATAAACAGTATAAGAAAGCTCATTTGGGCACAGCCCTAAAGGCCAACCC
TTTTGGAGGTGCTTCTCATGCAAAAGGAATCGTGCTGGAAAAAGTAGGAGTTGAAGCCAAACAGCCAAATTCTGC
CATTAGGAAGTGTGTAAGGGTCCAGCTGATCAAGAATGGCAAGAAAATCACAGCCTTTGTACCCAATGACGGTTG
CTTGAACTTTATTGAGGAAAATGATGAAGTTCTGGTTGCTGGATTTGGTCGCAAAGGTCATGCTGTTGGTGATAT
TCCTGGAGTCCGCTTTAAGGTTGTCAAAGTAGCCAATGTTTCTCTTTTTGGCCCTATACAAAGGCAAGAAGAAAG
ACCAAGATCATAAATATTAATGGTGAAAACACTGTAGTAATAAATTTTCATATGCC

 ${\tt MGKCRGLRTARKLRSHRRDQKWHDKQYKKAHLGTALKANPFGGASHAKGIVLEKVGVEAKQPNSAIRKCVRVQLIKNGKKITAFVPNDGCLNFIEENDEVLVAGFGRKGHAVGDIPGVRFKVVKVANVSLLALYKGKKERPRS}$ 

TTTATTTTAATTGCCGTAAAGGAACTGTATTTTTGTTTTTGTTTTTAACACAGCACTTTAAATCCAGTTTGTGTT TTGTCAACTTGAACTGGAATCTCTTTTGTTACTTTGGAGGTGATAAATAGTTTTCAAATCTGCTGATTTGTATAC TGTGGCACAAGTATCTTTGAACTTTGATAGTGAAAGGAGACCTTCAACAATTTTTAGTCTAGGCGAGAGGAATAT TAGGAATGTGACTTCTAAATTTTACAATAGAGCAGTTATTTTAAGGTCATGGTTAACATTTCTTAAGGTTCAACT AAAATTCAGTTAAAATTTCAGAGCTACGAGGAACTTAAATCTTAGCTAAAAATTACCTGTTGTAGATAGTATTAA TATTTCTAGATTAATAGGCTAGTAGTTATTTCTGCAGAAACAACGTATGGAAACTGAAAGCCACCTATTTTATTT TAGACTAATTTAAACCACTTGGAATGGATTCTAGGAAACATCTTAAGCTTGTGTGTTGCCTGTGGTGGTTTTTTTG TTTGGTTTTGGTTTTATATTTTTGGCATGTCTATGGCAGTTAAAAGTGGTATATTTTGCTTTAGATAGGGAATCA GGTTATAATCATTGTTCTTCCTCTAAACTGCCTCTTGGGCTTTACATCAGGTCAAGGATTTTTAGGGTTTCTCAA AAATAGGATTCTTGTCAGTGTATGCATGCTGAGTAAGTCACCTTTCTGGCTCTAATTTCTGGGTGGCCATCTGTT GTCCAGCTCTGCCGAACTGGACTTTCCGAAAGCCATGTCAACTAATTTTTTATATGCTAAGACAAATCGAATA AAAGGAAGAGATAATTTTGGGGGAAAATTTGTGGAAACATACAAAACGTTTTGCTTTGTATAGATGCTAAACAGA GTGGGAGGCAGCATATTTGTAACAACCATTCTGACCTTTTGAAACACAAGCTTTTGGAGAAGTCAGGGAGAG ACACAGTATGAATAAAAGCAATTAACATTTTCTTTAATGTATATTTTTCAAAGAGGACCACGGAATCCTGTTCTC TAACCCAAGGGGCAGTGTAGGTGGTTTTAAGCCCACAGAATATTGAGATATTTCTCTTGTGGTTTTGGTGGGGTG GTGGGATGCAGAAGGTTATTAAAGATCAATTTAAGCATCAGATAGACTATCCCTTTTATTTTTTTAACTTTTAGG TTCAGGGGTACATGTGCAGGTTGTTATATAGGTAAACTCATGTCAAGTGGTTTTGTTGTACAGATTATTTTGTCA GGCCCCAGTGTCTGTTGTTCCTTTCTTTGTGTCCTTGAGTTCTCATCATTTAGCTCCTACTTCTAAATGAGAACA TGTATTTGGTTTTCTGTTCTGTTTAGTTTGCTAAGGATAATGGCCTCCAGCTCAGATGGAATATCTCTATCATA TAGACCTGTTGTTACAGGGCAGGATCGGATGATGGACACTGAAGTCCTCAGCTTGCTAAGTTCAGTTGCTCTCCC TAGCCTCCTTTTGGCTTCAGAGTCTTTTGATTCCATCTATCCTGGTATTTTTTGTGTGCTGATGTTTAGTTCTGG GAGTCTGAATCCCTTCTGTGGCTTAAATAATTTGAGGATCAAGTCCAGTGTCTTGTTAATCCCTGTTCTACTGTG CCAGACACTATCTTGAATGCTTTTATATGTTCAGGTTCAAAATCGCTCTTTCATACCAGGGGATGATAGTAACGT GTAACTTGCAATAGATTCCTTCATCTTAGTAATAAGATGATCAGTCTAGTTAGGACAAAATAGAGATTGAATAAA TTAACTTTTCCAAGTTTACAGAGTAAAAATGAGCAGATCTCTGCCTGGTTTTGTGAAAAAGAGTTAGCACTGGTA AATAGAATATTTCTACTCCTACACCATTCTTTCAGTATATCATCACTGAAGACAGGAAGATAGGCACACAGATTC TTATTCAGATAATCCCAGGATTCTAGAAGAAAATAAAGAAGAGTGACAGTTCAGTTAGGGTGTGAACTTCCAGAG GAGCACTGCTTAAGCTGAACTTGAGAGCATTGTGCAAAAGCACAGTAGTCTGTTAAGAACTAGAAATAACCTAGC TTGTGCCACTTCGGGAGTATTAAGACATAAGCCTAGAAAGGTAGGCAAAGGTTAGATCTTAGACTGTCTTGTATT TTTCTCATTCCTGTTGATTACCTACCTCAAAATTGAATATGTTTTTCCTCCTGCCTAACACAAAACTACTCAAGG GCAGAAATTTAAATTCTTCCTTGGTGTATGTGCAAAGAAGGTTGAATATATTCATGCCTACCTTATTTTGGACTA GGAATACAGTAGTATACTTTCCGAAGACTTGCCTGAATAGTATATAAGGTGGAGGCAACTGACTAGTTAGGTCAG TATTTTTAGAAACTCTTAATAGCTCATACTCTTGATACCAAAAGCAGCCCTGATTGTTAAAGCACACACCTGCAC TTTGCAAAGCCTTTGAGAAGTTACTGGATCATAGGAAGCTTATAACAAGAATGGAAGATTCTTAAATAACTCACT TTCTTTGGTATCCAGTAACAGTAGATGTTCAAAATATGTAGCTGATTAATACCAGCATTGTGAACGCTGTACAAC CTTCCATGACTTTTACTTTGCCCTAAGCTAATCTCCAAAATCTGAAATGCTACTCCAATATCAGAAAAAAAGGGG GAGGTGGAATTATATTTCCTGTGATTTTAAGAGTACAGAGAATCATGCACATCTCTGATTAGTTCATATATGTCT AGTGTGTAATAAAAGTCAAGATGAACTCTC

 ${\tt MASSSDGISLSYRPVVTGQDRMMDTEVLSLLSSVALPSLLLASESFDSIYPGIFCVLMFSSGLASAVLIGRALSF} \\ {\tt QAILKGGQSKGQSLNPFCGLNNLRIKSSVLLIPVLLCQTLS} \\$ 

CGGGATTTAGATCACGTCCCGCAGGCCGGCAAGTAGCTGATACTCTCATTGGTTGCAAAACCTTGATCTGTGA AAGCGGGCGTTTTGGAAGATACCGGAAGTAGAGTCACGGAGAGGTATTAAGAA<u>ATG</u>GAGAGAAAAATAAGCAGAA TCCACCTTGTTTCTGAACCCAGTATAACTCATTTTCTACAAGTATCTTGGGAGAAAACACTGGAATCTGGTTTTG TTATTACACTTACTGATGGTCATTCAGCATGGACTGGGACAGTTTCTGAATCAGAGATTTCCCAAGAAGCTGATG ACATGGCAATGGAAAAAGGGAAATATGTTGGTGAACTGAGAAAAGCATTGTTGTCAGGAGCAGGACCAGCTGATG TATACACGTTTAATTTTTCTAAAGAGTCTTGTTATTTCTTCTTTGAGAAAAACCTGAAAGATGTCTCATTCAGAC TTGGTTCCTTCAACCTAGAGAAAGTTGAAAACCCAGCTGAAGTCATTAGAGAACTTATTTGTTATTGCTTGGACA TTCAAGGACGATTTGAAAAATGTGTGAGTGCTAAGGAAGCTTTTGGAGACTGATCTTTATAAGCGGTTTATTCTGG TGTTGAATGAGAAAAAAAAAAAAAAAAAGTTTGCATAATAAATTATTAAATGCAGCTCAAGAACGAGAAAAGG ACATCAAACAAGAAGGGGAAACTGCAATCTGTTCTGAAATGACTGCTGACCGAGATCCAGTCTATGATGAGAGTA TTTCAAGTCTTGATGTCACTGATATTGCACCAAGTAGAAAAAGGAGACAGCGAATGCAAAGAAATCTTGGGACAG AACCTAAAATGGCTCCTCAGGAGAATCAGCTTCAAGAAAAGGAAAAGCCTGATTCTTCACTACCTGAGACGTCGA AAAAGGAGCACATCTCAGCTGAAAACATGTCTTTAGAAACTCTGAGAAACAGCAGCCCAGAAGACCTCTTTGATG  ${\tt AGATT}$  TAACAGTCTCAAAAAATACTTTGATGTTCACTAGACTATGTTTTCTATTCATTTCTTTAAAAATGAAAAAG GCAAAATGGATTACACATGTATACAAAGATACGATTTGATGATGACACTGGCACATTGAGTTCTAAACTATTCAT ATATTATATGTGATAGCTGTCCAACATCCTGTCTGGGAAGATTTTGAAAACAGGACAAAGAAACATCATTTTAA AATGTCTTCAGCTTTTTTTGAATAGACGTATTCAAACATATTCTGAACATTGATGTTTGAACATTTTAATTTGTG TGATGATGTAGAAAATATAATTTTAGTTTGTACATAAACATTGTGAAAAATCTGATAATAAAATTTTTGATACATT GAAAAAAAAA

MERKISRIHLVSEPSITHFLQVSWEKTLESGFVITLTDGHSAWTGTVSESEISQEADDMAMEKGKYVGELRKALL SGAGPADVYTFNFSKESCYFFFEKNLKDVSFRLGSFNLEKVENPAEVIRELICYCLDTIAENQAKNEHLQKENER LLRDWNDVQGRFEKCVSAKEALETDLYKRFILVLNEKKTKIRSLHNKLLNAAQEREKDIKQEGETAICSEMTADR DPVYDESTDEESENQTDLSGLASAAVSKDDSIISSLDVTDIAPSRKRRQRMQRNLGTEPKMAPQENQLQEKEKPD SSLPETSKKEHISAENMSLETLRNSSPEDLFDEI

CGGGATTTAGATCACGTCCCGCAGGCCGGCAGTAGCTGATACTCTCATTGGTTGCAAAACCTTGATCTGTGA AAGCGGGCGTTTTGGAAGATACCGGAAGTAGAGTCACGGAGGGTAGGATCCGGAAGTGGGGCTTCTTTAAA TAACAAAAATCTGAGGTATTAAGAAATGGAGAGAAAAATAAGCAGAATCCACCTTGTTTCTGAACCCAGTATAAC TCATTTTCTACAAGTATCTTGGGAGAAACACTGGAATCTGGTTTTGTTATTACACTTACTGATGGTCATTCAGC ATGGACTGGGACAGTTTCTGAATCAGAGATTTCCCAAGAAGCTGATGACATGGCAATGGAAAAAAGGGAAATATGT TGGTGAACTGAGAAAAGCATTGTTGTCAGGAGCAGGACCAGCTGATGTATACACGTTTAATTTTTCTAAAGAGTC TTGTTATTTCTTCTTTGAGAAAAACCTGAAAGATGTCTCATTCAGACTTGGTTCCTTCAACCTAGAGAAAGTTGA AAACCCAGCTGAAGTCATTAGAGAACTTATTTGTTATTGCTTGGACACCATTGCAGAAAAATCAAGCCAAAAAATGA GCACCTGCAGAAAGAAATGAAAGGCTTCTGAGAGATTGGAATGATGTTCAAGGACGATTTGAAAAATGTGTGAG TGCTAAGGAAGCTTTGGAGACTGATCTTTATAAGCGGTTTATTCTGGTGTTGAATGAGAAGAAAAACAAAAATCAG AAGTTTGCATAATAAATTATTAAATGCAGCTCAAGAACGAGAAAAGGACATCAAACAAGAAGGGGAAACTGCAAT CTGTTCTGAAATGACTGCTGACCGAGATCCAGTCTATGATGAGAGTACTGATGAGGAAAGTGAAAACCAAACTGA TCTCTCTGGGTTGGCTTCAGCTGCTGTAAGTAAAGATGATTCCATTATTTCAAGTCTTGATGTCACTGATATTGC ACCAAGTAGAAAAAGGAGACAGCGAATGCAAAGAAATCTTGGGACAGAACCTAAAATGGCTCCTCAGGAGAATCA GCTTCAAGAAAAGGAAAAGCCTGATTCTTCACTACCTGAGACGTCGAAAAAGGAGCACATCTCAGCTGAAAAACAT GTCTTTAGAAACTCTGAGAAACAGCAGCCCAGAAGACCTCTTTGATGAGATT<u>TAA</u>CAGTCTCAAAAAATACTTTG ATGTTCACTAGACTATGTTTTCTATTCATTTCTTTAAAATGAAAAAGGAGAATTTCAAGTCAGCAGCCGCTATTA CCGTATCTTACAATTTAATTACATACACAGTGAATTGAAACCATTGTGCAAAATGGATTACACATGTATACAAAG CTGTCTGGGAAGATTTTGAAAACAGGACAAAGAAAACATCATTTTAAAATGTCTTCAGCTTTTTTGAATAGACG TATTCAAACATATTCTGAACATTGATGTTTGAACATTTTAATTTGTGTGATGATGTAGAAAATATAATTTTAGTT 

MERKISRIHLVSEPSITHFLQVSWEKTLESGFVITLTDGHSAWTGTVSESEISQEADDMAMEKGKYVGELRKALL SGAGPADVYTFNFSKESCYFFFEKNLKDVSFRLGSFNLEKVENPAEVIRELICYCLDTIAENQAKNEHLQKENER LLRDWNDVQGRFEKCVSAKEALETDLYKRFILVLNEKKTKIRSLHNKLLNAAQEREKDIKQEGETAICSEMTADR DPVYDESTDEESENQTDLSGLASAAVSKDDSIISSLDVTDIAPSRKRRQRMQRNLGTEPKMAPQENQLQEKEKPD SSLPETSKKEHISAENMSLETLRNSSPEDLFDEI

AGGTAAACAGAATCTGGTGATTATGGGTAAGAAGACCTGGTTCTCCATTCCTGAGAAGAATCGACCTTTAAAGGG TGATGCCTTAAAACTTACTGAACAACCAGAATTAGCAAATAAAGTAGACATGGTCTGGATAGTTGGTGGCAGTTC TGTTTATAAGGAAGCCATGAATCACCCAGGCCATCTTAAACTATTTGTGACAAGGATCATGCAAGACTTTGAAAG TGACACGTTTTTTCCAGAAATTGATTTGGAGAAATATAAACTTCTGCCAGAATACCCAGGTGTTCTCTCTGATGT CCAGGAGAGAAAGGCATTAAGTACAAATTTGAAGTATATGAGAAGAATGATTAATATGAAGGTGTTTTCTAGTT TAAGTTGTTCCCCCTCCCTCTGAAAAAAGTATGTATTTTTACATTAGAAAAAGGTTTTTTGTTGACTTTAGATCTA TAATTATTCTAAGCAACTAGTTTTTATTCCCCACTACTCTTGTCTCTATCAGATACCATTTATGAGACATTCTT GCTATAACTAAGTGCTTCTCCAAGACCCCAACTGAGTCCCCAGCACCTGCTACAGTGAGCTGCCATTCCACACCC GATCCACATACCCTTCAACTGAGCAGTTTCACTAGTGGAAATACCAAAAGCTTCCTACGTGTATATCCAGAGGTT TGTAGATAAATGTTGCCACCTTGTTTGTAACAGTGAAAAATTGAAAACAACCTGGAAGTCCAGTGATGGGAAAAT GAGTATGTTTCTGTCTTAGATTGGGGAACCCAAAGCAGATTGCAAGACTGAAATTTCAGTGAAAGCAGTGTATTT GCTAGGTCATACCAGAAATCATCAATTGAGGTACGGAGAAACTGAACTGAGAAGGTAAGAAAAGCAATTTAAAGT CAGCGAGCAGGTTCTCATTGATAACAAGCTCCATACTGCTGAGATACAGGGAAATGGAGGGGGAAAGCTGGAGT ATTGATCCCGCCCCCTCCTTGGTTGTCAGCTCCCTGTCCTGTGTGGGGGGGAACATAGTCCAGCTGCTCTATA GCAAGTCTCAGGTGTTTGCAGTAAGAAGCTGCTGGCATGCACGGGAACAGTGAATGCCAAACACTTAAAGCAATT CGATGTTTAAGTATGTAAGTTCTTTTTTTTTTAGACAGCGTTTCGCTCTTGTTGCCCAGGCTAGCATGCAATGGT GTGACCTCGGCTTACTGCAACCTCCGCCTTCCCAGATTCAAGCGATTCTCCTGCCTCAGGCTCCCAAGTAGCTAG GACCAGGTGCGCCCCCCCCCCCCCCCATTTTTTGTATTTTTAGTAGAGATGGGGTTTCACCATGTT TTGAGCCACCACACCCGGCACATCTTCATTCTTTTTATGTAGTAAAAAGTATAAGGCCACACATGGTTTATTTGA AGTATTTTATAATTTAAAAAAAATACAGAAGCAGGAAAACCAATTATAAGTTCAAGTGAGGGATGATGGTTGCTTG AACCAAAGGGTTGCATGTAGTAAGAAATTGTGATTTAAGATATATTTTAAAGTTATAAGTAGCAGGATATTCTGA TGAGACCAGCTTGGGCAACATGGCAAAGCCCCATCTCTACAAAAAACACAAAAATTAGCTGGGCATTGTGGCGCA TCGTGATTGTGCCACTGCACTCCAGCCGGGTGACAGAAGAGACCTTGTCTCGAAAAAGGAATCTGAAAACAATGG AACCATGCCTTCATAATTCTAGAAAGTTATTTTCAACTGATAAATCTATATTCACCCAAATAATCAAGGGTGAAG GTAAAATAATACATTTTTAGACAAGCAAAGACTCAGGGGTTACCTCCATGTGCCCTTTTTAGGGAAGCTGTTGGA GAAAATACTCCAGCAAAATGAAGGAGTACACAAACCAGAGAATGACATGAATCCAGCAAATAGGATCCAACACAG GCAATATTCCAGCTATGGAGCTAGCTTTAAAAAGGAACAGTAAAAATATTAATCGGTTAGCTGGGTGGAATGGCC CATGCCTGTAGTCCCAGCTACTCAGGAGGCTCAGCAGCAGGACGACTTGAGCCCAAGAGTTCCAGACCAGCCTGG CCACCTTAGTGAGATCCCTTCTCTTAAAAATAATAACTTATTGCCAGATTTGGGGCATTTGGAAAGAAGTTCATT GAAAGAAGTACAGGATAGGAAGAGCATAATACACTGTTTTTCTCAACAAGGAGCAGTATGTACACAGTCATAATG ATGTGACTGCTTAGCCCCTAAATATGGTAACTACTCTGGGACAATATGGGAGGAAAAGTGAAGATTGTGATGGTG TAAGAGCTAAATCCTCATCTGTCATATCCAGAAATCACTATATAATATATAATAATGAAATGACTAAGTTATGTG AGGAAAAAACAGAAGACATTGCTAAAAGAGTTAAAAGTCATTGCTCTGGAGAATTAGGAGGGATGGGGCAGGGG ACTGTTAGGATGCATTATAAACTGAAAAGCCTTTTTAAAATTTTATGTATTAATATATGCATTCACTTGAAAAAC TGCCTCTGGAAAGAACAACTGGCAGGACTGTTGTTTTCATTGTAAGACTTTTGGAGCCATTTAATTGTACTTAAC CATTTTCATCTATTTCTTTAATAAGAACAATTCCATCTTAATAAAGAGTTACACTTGTTAATA

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# 1770/6881 FIGURE 1641

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WO 2004/030615 PCT/US2003/028547

### 1771/6881 FIGURE 1642A

CTCCAATACCGCAGGAGGGCGGTCTTCCCCGGCTCGCCAACTCGGCTGCTCTGGGGGGATTCGTGCGCGGTAAGAA TGTCTAGGGGCGGCGACCTCAGCTGTTGGGCTCCGGCTGCTGGGGGCTGTGCGTCCAGCCGCCCTGGAATCCGCC GAAGGATAATCTACTTCCTTTTGAACAGCTTCGGTCCCCACTATGACAGTCGCATAAACTTCAGCGAAGAGTGCG CTGGTAAAGTGGCATGGAGTTTCTCACACCAATTCATTGGGTCCACCCTTCAGCTTCTGTGGAAGGGGTCTTTCT GTTACTAGGAGCTGAGACTTGGGGGGTTGCCAGGGATGCTGGTCTTAAAAGGTGATAATTTAGGCCGGGCGCGGT GGCTCACGCCTGTAATCCCAGCACTTTGGGAGGTCGAGGCGGGCAGATCTCCTGAGCTCAGGAGTTCGAGACCAC CCTGGGCAACATGGTGAAACCCCTTCTCTACTAAAATACAAAAAATTAGCTGGGCGTGGTGGCACGCGCCTGTAA TCCCAGCTATTCGGGAGGCTGAGGCCCGAGAATCGCTTGAGCCCTGGCGGCAGAGGTTGCAGTGAGCCAAGATCG CCCACTGCACTCCAGGTTGGGCTACAGAGTGAGACTCCGTCTCAACAACGACCACAACAACAACAAAAAAAGGTGG TGGCTTAATACAGCCATGCTCCCCTTAAGAACTGGTATAGTTATGAGAAATGGTTGGGCCGTTTCGTGGTTGTGT GAACATCATAGTGTACTTGCACAAACCTACACAGCTGGGCCGTATGGGATAGCCTGTTACTCCTAGTCTACAGAC CTGTACAGTATAACTACTAAATACTGTAGGCAGTTGTAAAAGGATGGTGTGTATCTAAACACAGAAAAGATACTG TAAAAATATAGTGTAAAAGAAAACATGGTACAGCTGAATAGGGCACTTACGCATGGAGCTTGCAGGGCTGTCGGT AGCTATTAAGTGAGTCAGTGAGTGGTATGTGAGTGTGAAGGCCTACGATATTATTTAGGGTATTACTGTACACTA CTGTAGACTTTATAAATGCGGTATGCTTAGTCTAAGTTTATTAAAAATAAGGTAATAACCTTAGCTTACTGTGCT TCTCTGTCTCTCATTTTTGAGACAGAGTTTTGCTCTTGTCACCCAGGCTGGAGTGCAGTGGCGCAATCTCAGCTC ACTGCAACGTCCACCTCTTGAGTTCAAGCGATTCTCCTGCCTCAGCTTCCCAGGTGGTGCGCGCCTGTAGCTGGG ACTACAAGAGTGCGCCACCACCACCCCAGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTGACCATGTTGGCCAG GATGGTCTCGATATCCTGACCTTGTGATCCACCTGGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCC ACCATACCCGGCCCACTCTTTTGTAATAACACTTAGCTTAAAATGCTAATGTTGTTGTATAGCTATATAAAAATAT ACATTG:IGCCTACACCGGGTCAGGAGCATCAATATCACTCTTTTCTTCCTCCACATCTTGTCCTACTGGAAGGTT TTCAGGGGCAGTAACATGAATGGAGCTGTCATCTCCTATAATAACTGCTTTTTTCTGGAATACTTATAATTGTCT TTATAATCATCTGAGACCAGTATCATGTGTGCAGTCGCTGTTGACCTAAATGTTATGTAGCATGTGACTAGCTGA TGAATCTTTGATTATGGCTGAATGTTCTCATTCATTGCAGGAAAAAAATATCCTCCAAATCACTAGGTAGTATGT AAGTGACCAAAACTTTTTTCCATTTTATGTTGGAGCCAAATCATTAGTGTTAGGATAAATTACTTCTTTATGTAT GTGCTCTAAAATGAAAAGTTATTTCTGAATATTAAAGCATATGTATTAAGAGTATAAAAACAAGATACAGATTTT GGTGTGAAATATATCTTATGATTCAAGTCATAATTTAAATAGAATTGAAGATGATGTGAAATCACTGGGCTGGAA GTAGCTTATACCTTGATTAGTAAGAGGAAGCCCGGGATCATCCTGTGATGGTAAACACTTTTATATGTTTTACTT ATAACTTTGCCAGGAAATTTCAACAAACTTCATATTAAAGGACATGATTTCTGTATACTTAGTAATCTGCTATGC AAATTGTTGCATTGAAATGGCAGACGAAGCAAGAAGATTGGGAGAAAGTAGCTGTGGGACTTGGAGATAGGAAAA GAAATAATTTGGTTTCTTAAGATAGTTTTTCAATTTTAAGCACACCTTTTTTAACTGGTGTGGCAGCTTTTCTGG TAAGTGGTAGATTTATGTTAGAAGCATGTCTATGCAGCATATTATAGCATTAAATATGTATACAGATATCTAACT GAAATAAAAAGTGTTTTAATAATTAAAAGTTTAACATATGGGCATATGTGACATATAGTGATATAGCATGTCTCT TTAGTTTTGTTGTTGTTGTTGATGGCTAACCACCCATGCTTGTCTTAAAAATTGATAAGGTACCACTGATGA AATT<u>ATG</u>ACCAGGTGGGCCCGAGTTAGTACCACATATAACAAGAGACCCTTGCCTGCAACATCATGGGAGGACAT GAAGAAGGGATCCTTTGAGGGAACAAGCCAAAACCTACCAAAGCGTAAACAACTTGAAGCCAATAGGCTATCCCT CAAAAATGATGCACCCCAAGCAAAACATAAAAAGAACAAAAAGAAAAAAGAGATACTTAAATGAAGATGTGAATGG GAAAAATGCAATGGTGTTTCCATTGTAGAAAACCTGGTCATGGAATTGCAGATTGCCCCGCCGCCCTTGAAAA

### 1772/6881 FIGURE 1642B

MTRWARVSTTYNKRPLPATSWEDMKKGSFEGTSQNLPKRKQLEANRLSLKNDAPQAKHKKNKKKKEYLNEDVNGF MEYLRQNSQMVHNGQIIATDSEEVREEIAVALKKDSRREGRRLKRQAAKKNAMVCFHCRKPGHGIADCPAALENQ DMGTGICYRCGSTEHEITKCKAKVDPALGEFPFAKCFVCGEMGHLSRSCPDNPKGLYADGGGCKLCGSVEHLKKD CPESQNSERMVTVGRWAKGMSADYEEILDVPKPQKPKTKIPKVVNF

GGGGAGGCTGTGATGGGTTGACAGGTGCGTGACAGTGGGAGCTGCTCTCGGCACAAGCATGTACGGCAAAGGCAA GAGTAACAGCAGCCGTCCCGTCCGACAGCCAGGCCCGGGAGAAGTTAGCACTCTACGTATATGAATATCTGCT CCATGTAGGAGCTCAGAAATCAGCTCAAACATTTTTATCAGAGATAAGATGGGAAAAAAACATCACATTGGGGGA ACCACCAGGATTCTTACATTCTTGGTGGTGTGTATTTTGGGATCTCTACTGTGCAGCTCCAGAGAGACGTGAAAC ATGTGAACACTCAAGTGAAGCAAAAGCCTTCCATGATTACAGTGCTGCAGCAGCTCCCAGTCCAGTGCTAGGAAA  ${\tt CATTCCCCCAGGAGATGGCATGCCAGTAGGTCCTGTACCACCAGGGTTCTTTCAGCCTTTTATGTCACCTCGGTA}$  $\tt CCCTGGAGGTCCAGGGCCCCCATTGAGGATACCTAATCAGGCACTTGGAGGTGTCCCAGGAAGTCAGCCATTACT$ AAGAGGAATGGTGCCCTTAGGACCACAGAACTATGGAGGTGCAATGAGACCCCCACTGAATGCTTTAGGTGGCCC ATACTCCTCAGCATCTCCTGGGAATTATGTAGGTCCTCCAGGAGGTGGAGGGCCACCAGGAACACCCATCATGCC ACCTAATTTTCCAATGGGTCCTGGGTCAGATGGTCCCATGGGTGGATTAGGAGGAATGGAGTCACATCACATGAA TGGCTCTTTAGGCTCAGGAGATATGGACAGTATTTCCAAGAATTCTCCCAATAATATGAGCCTGAGTAATCAACC GGGCACTCCAAGGGATGATGGCGAAATGGGGGGAAATTTCTTAAATCCTTTTCAGAGTGAGAGTTACTCCCCTAG  ${\tt CATGACAATGAGCGTG} \underline{{\tt TGA}} {\tt TCCATTACCAAGTCTCCTCATGAAAACCACAGTGAGTCAGCCCTTCACAGAACTAC}$ TACGGAAGAAATTATTCATCACAGTGTACAGTTAAACAAAGGAATCTCAGTCACACCAAACCATTTTTATT  ${\tt TCCTGCTCTCTCCCCTCTTTTGTGAAGAAGCGGGTCCAAATGTGATTCAAACAACTGTACGGAGTGGCATATTA}$ GTATGTTATACAGACATATACACATACATTGACCCACAGGACATTGTAAAATATTATCACATGACATCTTA AGTAGAAATAAGTAGGGACTTTTATTCCATCCTTTTTTTCACGTTTACATTTTAATTATTACAAGTTGCTCCTGC  $\tt CCCCTCCCTGAACTATTTTGTGCTGTTATATCACTGCTTTATATAAGTTATTTTTTAAGGTGAACTCAGATGTT$ ATGGTTTTGTAAATGTCTGCAATCATGGATAGGAATAAAATCGCTTATTTGAGAGCTTTC

MYGKGKSNSSAVPSDSQAREKLALYVYEYLLHVGAQKSAQTFLSEIRWEKNITLGEPPGFLHSWWCVFWDLYCAA PERRETCEHSSEAKAFHDYSAAAAPSPVLGNIPPGDGMPVGPVPPGFFQPFMSPRYPGGPRPPLRIPNQALGGVP GSQPLLPSGMDPTRQQGHPMMGGPMQRMTPPRGMVPLGPQNYGGAMRPPLNALGGPGMPGMNMGPGGGRPWPNPT NANSIPYSSASPGNYVGPPGGGGPPGTPIMPSPADSTNSGDNMYTLMNAVPPGPNRPNFPMGPGSDGPMGGLGGM ESHHMNGSLGSGDMDSISKNSPNNMSLSNQPGTPRDDGEMGGNFLNPFQSESYSPSMTMSV

### 1776/6881 FIGURE 1646A

GAATTCCCAGCTCTCTCCTCGCTCGCAGTCACAGACACTTGAGCACACGCGTACACCCAGACATCTTCGG GCTGCTATTGGATTGACTTTGAAGGTTCTGTTGTGGGTCGCCGTGGCTGCATGTTTGAATCAGGTGGAGAAGCACT TCCCAAGGACTAATCTGATCGGGTCTTCCTTCATCAGGAACGAATGCAGGAATTTGGGAACTGAGCTGTGCAAGT CGAGAGAGAGAAAAACGGGGACT**ATG**GGGAGAAAAAAGATTCAGATTACGAGGATTATGGATGAACGTAACA GACAGGTGACATTTACAAAGAGGAAATTTGGGTTGATGAAGAAGGCTTATGAGCTGAGCGTGCTGTGTGACTGTG AGATTGCGCTGATCATCTTCAACAGCACCAACAAGCTGTTCCAGTATGCCAGCACCGACATGGACAAAGTGCTTC GCCTTAATGGCTGTGACAGCCCAGACCCCGATGCGGACGATTCCGTAGGTCACAGCCCTGAGTCTGAGGACAAGT ACAGGAAAATTAACGAAGATATTGATCTAATGATCAGCAGGCAAAGATTGTGTGCTGTTCCACCTCCCAACTTCG AGATGCCAGTCTCCATCCCAGTGTCCAGCCACAACAGTTTGGTGTACAGCAACCCTGTCAGCTCACTGGGAAACC CCAACCTATTGCCACTGGCTCACCCTTCTCTGCAGAGGAATAGTATGTCTCCTGGTGTAACACATCGACCTCCAA GTGCAGGTAACACAGGTGGTCTGATGGGTGGAGACCTCACGTCTGGTGCAGGCACCAGTGCAGGGAACGGGTATG CCCCAATGAATTTAGGAATGAATAACCGTAAACCAGATCTCCGAGTTCTTATTCCACCAGGCAGCAAGAATACGA CTACCCCAGTGGTTTCCGTAGCAACTCCTACTTTACCAGGACAAGGAATGGGAGGATATCCATCAGCCATTTCAA GAGCTTGCACTAGCACTCATTTATCTCAGAGTTCAAATCTCTCCCTGCCTTCTACTCAAAGCCTCAACATCAAGT CAGAACCTGTTTCTCCTCCTAGAGACCGTACCACCCCTTCGAGATACCCACAACACCACGCGCCACGAGGCGG GGAGATUTCCTGTTGACAGCTTGAGCAGCTGTAGCAGTTCGTACGACGGGAGCGACCGAGAGGATCACCGGAACG AATTCCACTCCCCATTGGACTCACCAGACCTTCGCCGGACGAAAGGGGAAAGTCCCTCAGTCAAGCGCATGCGAC GTTTTGTAAAAGTACTTTTAAATTGCCTCAGTGATACAGTATAAAGATAAACAGAAATGCTGAGATAAGCTTAGC ACTTGAGTTGTACAACAGAACACTTGTACAAAATAGATTTTAAGGCTAACTTCTTTTCACTGTTGTGCTCCTTTG CAAAATGTATGTTACAATAGATAGTGTCATGTTGCAGGTTCAACGTTATTTACATGTAAATAGACAAAAGGAAAC ATTTGCCAAAAGCGGCAGATCTTTACTGAAAGAGAGCAGCTGTTATGCAACATATAGAAAAATGTATAGATGC TTGGACAGACCCGGTAATGGGTGGCCATTGGTAAATGTTAGGAACACCACGGTCACCTGACATCCCAAGAATGC TCACAAACCTGCAGGCATATCATTGGCGTATGGCACTCATTAAAAAGGATCAGAGACCATTAAAAGAGGACCATA CTTATTAAATAAAAATATAAAAATATGTACATTACATTTTGCTTATTTTCATATAAAAGGTAAGACAGAGTTTGC AAAGCATTTGTGGCTTTTTGTAGTTTACTTAAGCCAAAATGTGTTTTTTTCCCCTTGATAGCTTCGCTAATATTT TAAACAGTCCTGTAAAAAACCAAAAAGGACTTTTTGTATAGAAAGCACTACCCTAAGCCATGAAGAACTCCATGC TTTGCTAACCAAGATAACTGTTTTCTCTTTGTAGAAGTTTTGTTTTTTGAAATGTGTATTTCTAATTATAAAAAT AATAGCAGAAGTTTTGTTATCTTAATAGCGGGAGGGGGGTATATTTGTGCAGTTGCACATTTGAGTAACTATTTT CTTTCTGTTTTCTTTTACTCTGCTTACATTTTATAAGTTTAAGGTCAGCTGTCAAAAGGATAACCTGTGGGGTTA GAACATATCACATTGCAACACCCTAAATTGTTTTTAATACATTAGCAATCTATTGGGTCAACTGACATCCATTGT ATATACTAGTTTCTTCATGCTATTTTTATTTTGTTTTTTTGCATTTTTATCAAATGCAGGGCCCCTTTCTGATCT CACCATTTCACCATGCATCTTGGAATTCAGTAAGTGCATATCCTAACTTGCCCATATTCTAAATCATCTGGTTGG TTTTCAGCCTAGAATTTGATACGCTTTTTAGAAATATGCCCAGAATAGAAAAGCTATGTTGGGGCACATGTCCTG CAAATATGGCCCTAGAAACAAGTGATATGGAATTTACTTGGTGAATAAGTTATAAATTCCCACAGAAGAAAAATG TGAAAGACTGGGTGCTAGACAAGAAGGAAGCAGGTAAAGGGATAGTTGCTTTGTCATCCGTTTTTAATTATTTTTA ACTGACCCTTGACAATCTTGTCAGCAATATAGGACTGTTGAACAATCCCGGTGTGTCAGGACCCCCAAATGTCAC TTCTGCATAAAGCATGTATGTCATCTATTTTTCTTCAATAAAGAGATTTAATAGCCATTTCAAGAAATCCCATA

## 1777/6881 FIGURE 1646B

MGRKKIQITRIMDERNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIFNSTNKLFQYASTDMDKVLLKYTEYNEP
HESRTNSDIVETLRKKGLNGCDSPDPDADDSVGHSPESEDKYRKINEDIDLMISRQRLCAVPPPNFEMPVSIPVS
SHNSLVYSNPVSSLGNPNLLPLAHPSLQRNSMSPGVTHRPPSAGNTGGLMGGDLTSGAGTSAGNGYGNPRNSPGL
LVSPGNLNKNMQAKSPPPMNLGMNNRKPDLRVLIPPGSKNTMPSVSEDVDLLLNQRINNSQSAQSLATPVVSVAT
PTLPGQGMGGYPSAISTTYGTEYSLSSADLSSLSGFNTASALHLGSVTGWQQQHLHNMPPSALSQLGACTSTHLS
QSSNLSLPSTQSLNIKSEPVSPPRDRTTTPSRYPQHTRHEAGRSPVDSLSSCSSSYDGSDREDHRNEFHSPIGLT
RPSPDERESPSVKRMRLSEGWAT

ATGCAGGCCCGACAAGTAATGCTAGCAGTGGCACTTTATAGCCACGGCTGCACAGAAATCAGAACATTTTCTTTA
GATTTTTTGAAGAAGCGCATCTTTCAGATTCACACAAGCAGGATGACGCTGGTGATGATGTAACCCTGGACGAC
CTGATCATGGCTAAAGATGACCCTCTCTGGTGCTGACATCAAGGCAATCTGTACAGAAGCTGGTCTGATGGCCTTA
AGAGAACGTAGAATGAAAGTAACAAATGAAGACTACATTGACTTTTCTAAAATAGAAATCAGGGAAGGT<u>TAA</u>

 ${\tt MQARQVMLAVALYSHGCTEIRTFSLDFLKKRIFQIHTSRMTLADDVTLDDLIMAKDDLSGADIKAICTEAGLMALRERRMKVTNEDYIDFSKIEIREG}$ 

# FIGURE 1650

TTTCCTCTTTCTCTAAGAGTCTCTCTCCCCTTTCCCTCTCTCCCCCCAATCTGTCTTTCTAGCATGTTGCCC CTCCCTGGACTGAAGAGAGGGGAGAATAGAAGCCCAAGACTAAGATTCTCAAAAATGGTTTATTACCCAGAACTCTT TGTCTGGGTCAGTCAAGAACCATTTCCAAACAAGGACATGGAGGGAAGGCTTCCTAAGGGAAGACTTCCTGTCCC AAAGGAAGTGAACCGCAAGAAGAACGATGAGACAAACGCTGCCTCCCTGACTCCACTGGGCAGCAGTGAACTCCG  $\tt CTCCCCAAGAATCAGTTACCTCCACTTTTTT{\color{red}{TAA}} TCGTAACACCTCCATTTGTATTACATATGGTGTATGGGTAT$ TGATGAGGTCATGGTATCATATATGGGATTTTTTTCTGTGTAAATCATCAAGTATAAGAAGAAACTATGGGACTC TGAGCCTTGCTTTAGAGAATTTACAGTGGACAAATAGGTGTCATCAAACCAGTTTTTAATCATTCTGACTCAAGT GAAAACGCTCAGAATTTCACACTGTGAATCCACGTTTACAACCCTTACAGGTGGGCCTTCAGGCCTGGTTCGCTA TAGTTTATGTTCATCAATTGTCTGTATATCTCTATATTTTATCCATGTACTCTTTTGATGTATAGAAGTAGTTTG AAACTCATTGTTTCCTTGTGGTAAGTGACCGAGATGCTGCCACAGGACCTGAGACACTGATGAATGGTGCTATTT TGGACTTTCAACATGCTCCTTGGCGAGGTAGCTCTGATGGAGTTATTTTTTATTTCCATGTTCTAAGAAGGTGTT GGTACTCTGTTTCCCTGAATGTTGTTCTCTAGACTGGATTGACTTGTTTTCCTTGTGTCTTCAGTGTGGCTTTCT TGCCTGACTTAGAGAAAGAAAAGCAATAATTTTACAGGCATTTTGAGGTGTCTCTTTGGGTTCTTTTGAA CTGAGTAGGAATATGAAAATGACACCTTTTCCAAATATTAAATTGGAAAACAAGGTCTACAAAATCATGATACTT TTTTAAAAGGCAGAGCATTCTTTTTTCGGCAATTTTGATAAGCAAGGTGTAGATTTACATTTTTTGTCCTTGCTCC CAACGAAATGGATAAACAAAAATAAATTACCATCTACTCATGGAATGTTGTTGTTAGCCAGTCTGAAAGCCCA CCTTAATTTTTATATAACTGTCTTTAGCTCTTCTTTTGACAGGGCAGGCCTTGTTCTGAACTGTTTCGCTTCTGA CTGTTAAACACCGATGACGCATGCACTGCACTTCTTCGTTTTCTTCTTGCTCCCCCATTGGCCTGAGTTTCTTGT GCATTACTCCTCCCCCCCTCGTTAGAATAGGTATATCAGCTGTGTAAATAGAGCAAGAAAACAGTATTCTGCA TCTGTGGCATTTATGTAGAGTTGCAGTTGTGTACTGCTGAAAATGCAGGCTTTTGTAACAGTGTGATCTTTACTG **GTAACTGTCTG** 

 ${\tt MVYYPELFVWVSQEPFPNKDMEGRLPKGRLPVPKEVNRKKNDETNAASLTPLGSSELRSPRISYLHFF}$ 

 $\label{thm:convex} {\tt MAVGKNKCLTKGGKKGAKKKVVDQFSKKDWYDVKASAMFSIRNIGKTLVTRTQGTKIASDGLKGRVFEVSLADLQ} \\ {\tt NDEVAFRKFKLITEDVQGKNCLSNFHGMDLTRDKMCSMVKKWQTMIEAHVDVRTTDGYLLHLFCVGFTKKRNNQIRKTSYAQHQQVRQIRKKMMEIMTPEVQTNDLKDPEVQTNYSGQ} \\$ 

CCGCAGCCCATCGCATGGCTCAAGAGTTTGTGAACTGCAAAATCCAGCCTGGGAAGGTGGTTGTGTTCATCAAG CCCACCTGCCGTACTGCAGGAGGGCCCAAGAGATCCTCAGTCAATTGCCCATCAAACAAGGGCTTCTGGAATTT GTCGATATCACAGCCACCAACCACACTAACGAGATTCAAGATTATTTGCAACAGCTCACGGGAGCAAGAACGGTG CCTCGAGTCTTTATTGGTAAAGATTGTATAGGCGGATGCAGTGATCTAGTCTCTTTGCAACAGAGTGGGGAACTG CTGACGCGGCTAAAGCAGATTGGAGCTCTGCAGTAACCACAGAACAGGCCCCATGCTGACGTCCCTCCTCAAGAG CTGGATGGCATTGCAAATGATGACAGCACTTCTGGTGGATGAATTTGGGGGCACAAACAGCTTTTTTCCTCTTTT GGCTCAGTATTTAAAAGTGGACCAACTTGCTCTTAATCACAGGGCCAAGAAGGTTGACGGGCCATCTTGGTTTTC TTCTGGATGTGCTCTTTGGTTTTCAGAAGACTGTGACAAGTTCTGGCCCAGGATTCGCTCACTGACCCTCAATTG TCCTCTTTGGCATGCGTTTCTTACTGTTCTCCATGTGTCGGCATGTCTCTACCTCTAAGCCAGTGTTTTTCAACT ATGTTTATCCAGACTCCTTCTCCACAATGATGAATCCACAGTTGGTTATCTGCTACTGCCCATTAGCTAAAATCA TTTTGCTGCTTGACTTTATGGAGTTTGTATTATGAAATCAGTGGGTATTTTGAATGTGTTCTTATCTAACTACATG CATCTCTCCACTCAACTCCACCCCATCCCATCCCACCTTGAAAATCACTGCTCTGAACCAGTGTTCTCCACCTTG TCCTCCACAGATCTCATAGGAAATGTTCAACAATTCTGTGAAAGGTCACAGGACCCAATTGGAGAAATCATATGA AAAGCATAGTTGGTCTTGGTGTCATATGGATCAGAGGCACAAGTGCAGAGGCTGTGGTCATGCGGAACACTCTGT ATGAAATGTAAAACATCTGATAAAACTTACAGCCCCCTACACCAAGAGTGTATCTGTGAAAGAGCTCCTACACTT TGAAAACTTAAGAATCCCTTATCATGAAGTTTGCCTGTTCTAGAATTGTAAGATTGTTAATTTCCTTCAATCTCT AGTGACAACACTTAATTTCTTTTCTAATAAAAAAAACCTATAGATGATTCAGTG

MPPKDDEKKDAGKSAKKDKDPVNKSGGKAKKKKWSKGKVRDKLNNLVLFDKATYDKLCKEVPNYKLITPAVVSER LKIRGSLARAALQAKHRAQVIYTRNTKGGDAPAAGEDA

GACTGTACAATTTGTTCAAGGAATTTTTGTAGAAAAATACGATCCTACGATAGAAGATTCTTATAGAAAGCAAGT TGAAGTAGATGCACAACAGTGT<u>ATG</u>CTTGAAATCTTGGATACTGCAGGAACGGAGCAATTTACAGCAATGAGGGA TTTATACATGAAAAATGGACAAGGATTTGCATTAGTTTATTCCATCACAGCACAGTCCACATTTAACGATTTACA AGACCTGAGAGACAGATTCTTCGAGTTAAAGACACTGATGATGTTCCAATGATTCTTGTTGGTAATAAGTGTGA CTTGGAAGATGAAAGAGTTGTAGGGAAGGAACAAGGTCAAAATCTAGCAAGACAATGGAACAACTGTGCATTCTT AGAATCTTCTGCAAAATCAAAAATAAATGTTAATGAGATCTTTTATGACCTAGTGCGGCAAATTAACAGAAAAAC  ${\tt TCCAGTGCCTGGGAAGGCTCGCAAAAAGTCATCATGTCAGCTGCTT} \underline{{\tt TAA}} {\tt TATACTAAATGCATTGTAGCTCTGAG}$ CCAGGTCTGAAGAACTGTTGCCCAATTCAACAGTGCCAGCATTCCAACTTTGTTAAACCTACCAACATCTTAAAT GGACTTTCCTGTGGTGGTACCCTTTAAGAGGCGGATGAAAGCTACTATATCAGTTTGCACATTCTAATCACTTTC CAGTATCACAAGAGAGATTTTTACTTATATAATAGTCCTAGAGTTTGCAGCTGGTAAAACCAGAGGCTACATCCA GTATTACTGCTAAGAGACATTCTTCATCCACCAATGTTGTACATGTATGAAAATGGTGTACTGTATACTTTAACA TGCCCCATACTTTGTATTGGAGAGTACAATAATGTAAATCCTAAAAGCACCACTATTTTAGCATAATAAAAGAAA GTCCAAAGAGCTCCTATATAGACTACTCCAGATAACTTCGCTTCTTTGATACTTGTAGCTTATTGTAATTTTTTT TAAGAAATTCAAGGTCATTATTATTGTACAAAATAAGCGCTTTGATTAACACAGCTATATAGTTTTTTAATTTT TAAAAAACCTGTGGAGACGGTGATCTTGTCTTTAAAACATGATAGTCCTTTCAGTATAATGTCTTAGATTAAAGA CGTTGCCTTTAATATCTGTTGGGAAGGAAATGTCCAGACTTTTCAAATCTCTTATTATATGTTTCCTTTTTTTGT TTACATAGGGAACAATGTTTATAGTCGTGTGTACAGTGGGGGTCTACAACAAGAAGTGTATATTTTCAAACAATT TTTTAATGATTTAACAATTTTTGTAAATCATTTTCAGGCTTCTGCAGCTGTAGATTCTCACTGTGAATCCCTTGC TTGCTCATGCATAAGTGTATTTGCAATACCAAATATACAGGTTTAGTATTTTTGCCTGTTAGTGATTGTTTCACA TGTGTAACGTTTTGGTTGAGATGTTAAATGGTGGACGAGTACTGTGGATGTGAATGTGGGAAGTAATTTTAATCA CATTAATGTTTGGATGTAAAGATTGTGTGTCTATCCAACAGGGAGCCACAGTATTTAAATTGACCAACCTAATGT 

WO 2004/030615 PCT/US2003/028547

# 1790/6881 FIGURE 1659

 ${\tt MLEILDTAGTEQFTAMRDLYMKNGQGFALVYSITAQSTFNDLQDLREQILRVKDTDDVPMILVGNKCDLEDERVV\\ GKEQGQNLARQWNNCAFLESSAKSKINVNEIFYDLVRQINRKTPVPGKARKKSSCQLL}$ 

AGAAGTCCTACAAGGTGTCCACCTCTGGCCCCCGGGCCTTCAGCAGCCACTCCTACACAAGTGGGCCCGGTGCCC ACATCAGCTCCTCAAGCTTCTCCCAAGTGGGCAGCAGCTGCTTTCGGGGTGGCCTGGGCGGCGGCTGTGGTGGGG CCGACATCCAGGCTGTGCACCCAGGAGAAGGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATAG ACAAGGTACGGTTCCTGGAGCAGCAGAACAAGATGCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGCAGAAGACGG CCGGGAGCAACATGTTCAAGAGCTACATCAACAACCTTAGGCGGCAGCTGGAGACTCTGGGCTAGG AGAAACTGAAGCTGGAGGCGGAGCTTGGCAACATGTAGGGGCTGGTGGAGGACTTCAAGAACAAGT<u>ATG</u>AGGATG AGATCAATAAGCGTGCAGAGATGGAGAATGAATTTGTCCTCATCAAGAAGGATTGTGGATGAAGCTTACATTAAC ATCCGGGAGCTGCAGTCCTGGATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAGCCGCTCCCTGGACATG AACAGCGTCATCGCTGAGGTCAAGGCACAGTACGAGGAGATCGCCAACCGCAGCCAGGCCGAGGCTGAGAGCATG TACCAGATCAAGGATGAGGAGCTGCAGAGTCTGGCTGGGAAGCATGGGGATAACCTGCGGTGCACAAAGACTAAG ATCTCCGAGATGAACCGGAACATCAGCCGGCTCCAGGCTGAGAATGAGGGCCTCAAAGGCCAGAGGGCTTTCCTG GAGGCCGCCATTGCAGATGCCGAGCAGTGTGGAGAGCTGGCCATTAAGGATGCTAACGCCAAGTTGTCGAGCTGG AGGCCGCCTGCAGCGGGCCAAGCAGGACATGGCGTGGCAGCTGCGTGAGTACCAGGAGCTGATGAACGTCAGGC TGGCCCTGGACATCGAGATCGCCACCTACAAGAAGCTGCTGGAGGGGGAGAGGCCGGCTGGAGTCTGGGATGC AGAACATGAGTATTCATACGAAGACCACCAGCGGCTATGCAAGTGGTCTGAGCTCGGCCTGTGGGGGCCTCACAA GCCCCGGCCTCAGCTACGGCCTGGGCGCCAGCTCCTTCAGCCGCACCAGCTACTCCAGGGCCGTGGTTGTGAAGA TÇGAGACACGTGATGGGAAGCTGGTGTCCGAGTCCTCTGACGTCCTGCCCAAGTGAACAGCTGTGGCAGCCCCTC 

MRMRSISVQRWRMNLSSSRRIVDEAYINKVELESRLEGLTDEINFLRQLYEEEIRELQSWISDTSVVLSMDNSRS LDMNSVIAEVKAQYEEIANRSQAEAESMYQIKDEELQSLAGKHGDNLRCTKTKISEMNRNISRLQAENEGLKGQR AFLEAAIADAEQCGELAIKDANAKLSSWRPPCSGPSRTWRGSCVSTRS

AGTGGGCAGCAGCTGCTTTCGGGGTGGCCTGGGCGGCGGCTGTGGTGGGGGCCAGCGGCATGGGAGGCATCACCGC
GGTCACAGTCAACCAGAGCCTGCTGAGCCCCCTTGTCCTGGAGGTGGACCCCGACATCCAGGCTGTGTGCACCCA
GGAGAAGGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATAGACAAGGTACGGTTCCTGGAGCAGCA
GAACAAGATGCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGACGGCCGGGAGCAACATGGACAACATGTT
CAAGAGCTACATCAACAACCTTAGGCGGCAGCTGGAGACTCTGGGCTAGGAGAAACTGAAGCTGGAGGCGGAGCT
TGGCAACATGTAGGGGCTGGTGGCTGGAACATGAGTATTCATACGAAGACCACCAGCGGCTATGCAAG
TGGTCTGAGCTCGGCCTGTGGGGGCCTCACAAGCCCCGGCCTCAGCTACGGCCTGGGCGCCAGCTCCTTCAGCCG
CACCAGCTACTCCAGGGCCGTGGTTGTGAAGATCGAGACACGTGATGGGAAGCTGGTGTCCGAGTCCTCTGACGT
CCTGCCCAAGTGAACAGCTG

GCGGCCGCGGCCGTGAGCCTGCCCCAACTCGCCCTCAGCCGGCTGGCCGGCGCGGCCA**TC**GAGGTCTACATCCC AAAACATTTTGTTGAAAAGAGATACAGCGAATTTCATGCTTTGCACAAAAAGCTTAAGAAATGTATAAAAACTCC AGAAATCCCTTCTAAACATGTTAGGAACTGGGTCCCCAAAGTCTTGGAACAGCGACGACAAGGCTTGGAAACATA CTTACAGGCTGTCATTTTAGAAAATGAAGAACTTCCCAAACTGTTTCTTGATTTCCTAAATGTGCGACACTTGCC CTCTCTACCAAAGGCAGAAAGTTGTGGATCTTTTGATGAAACAGAGTCTGAAGAGTCAAGCAAACTGTCCCACCA AGTCCTCCATGGGATATTTTACCCTCATCTACAGCCCAGG<u>TAG</u>AAATCCTACATGGCTAAAAGAAGCAGAAGCAA GTTTCGAAGTCACAGTCAAGGAAATCAATACCTACCAATTTAACCTAAACGCTATGATATAAACAGCTCTAGCT AGTGGTAAAGTGCACAGTCCCAGCTTAATTCAGGGCAGGGACATTTCCATTAGAATGGTGCTCTTAAAAATAGAA ACTGAACCGGGGCGGTGGTCAGGCTAAGGCCAAGTGTTTAAGAAGTAGAGTGTAGCTGCCAGCGTAGAAACCCAT GAAAAGGAGGCCACAGGAGATTCCTGGGAGCACTGGGTGTAGCAAAACAAAGCCACTCTCTGCTTCAGTCGCACC ATTTGCTAATTGAAAATCATATCCTGAATCATACTGAGACTGATCAACTTTGGTAGCTTTTTTTGTTCAGATCTTA TGACACACTACTCTCTCACCGTGAGATTTTCTCAGCCAGTGATAGTACATTCTGAAATGCTGGCACCAGGAGAC GGCCACAGACACACTGCTAAATGTGAAGATGGAACTAAACTGGAAATTAAATTATACTGACAATATTATGGCA TTTTTAAGATCATGGCATTTTAATTTACATTAGAGTGGAGTTGCATCATACTCAGGGGTTAGCTTCCAAGGTCAG TACATAGGTAAAATGGGCTATTAGGATGATCCTTGAAAGCCCTTTAGAAGGGTGCCATGTTGGAAACCTGTACAT TTACTCAAGGGTGTGCATTCATTTTAGGTGGGATCGCCACAGGATTTCATGTTATTTTCCTTACGGCTTCCTTTT CACTGACCTCATTTGTTGAGTTAATGTAAGTTAAATGTGTCTATGATATAACTCCACTGTACATCATCCTTTGAG AGCTAGCCTATTTATGGTTATTCGTTTTAGTAAGTTCTGTGGGAGCAAGGTATTTAAAATCAAAACTAATAACTA CATCATGGTTTTTGATTAGGATCTAAATATTCAGGTTTTAAGCCTGCTGCAAACTTTTAAAATATTATGATAGAT TCTGTACTACATGTGGGAAACAAGCAAGAACTAAATAATCAAATGTTGTCAACCAAAAGTAATAGTTGGGTATTG ΑΑΑΑΑΑΑΑΑΑΑΑ

MEVYIPSFRYEESDLERGYTVFKIEVLMNGRKHFVEKRYSEFHALHKKLKKCIKTPEIPSKHVRNWVPKVLEQRR QGLETYLQAVILENEELPKLFLDFLNVRHLPSLPKAESCGSFDETESEESSKLSHQPVLLFLRDPYVLPAASDFP NVVIEGVLHGIFYPHLQPR

AGCTCGCGCAGTCGTTCGGGTGAGCGAAGATCGCGGCCGAGAGGGAACCTCCTCCGCTGGGGGACGGGAAGCCCA CCGACTTTGAGGATCTGGAGGACGGAGAGGACCTGTTCACCAGCACTGTCTCCACCCTAGAGTCAAGTCCATCAT CTCCAGAACCAGCTAGTCTTCCTGCAGAAGATATTAGTGCAAACTCCAATGGCCCAAAACCCACAGAAGTTGTAT TAGATGATGACAGAAGATCTTTTTGCAGAAGCCACAGAAGAAGTTTCTTTGGACAGCCCTGAAAGGGAACCTA TCCTATCCTCGGAACCTTCTCCTGCAGTCACACCTGTCACTCCTACTACTACTTGCTCCTAGAATTGAATCAA AGAGTATGTCTGCTCCCGTGATCTTTGATAGATCCAGGGAAGAGTTGAAGAAGAAGCAAATGGAGACATTTTTG ACATAGAAATTGGTGTATCAGATCCAGAAAAAGTTGGTGATGGCATGAATGCCTATATGGCATATAGAGTAACAA CAAAGACATCTCTTTCCATGTTCAGTAAGAGTGAATTTTCAGTGAAAAGAAGATTCAGCGACTTTCTTGGTTTGC ACAGCAAATTAGCAAGCAAATATTTACATGTTGGTTATATTGTGCCACCAGCTCCAGAAAAGAGTATAGTAGGGA TGACCAAGGTCAAAGTGGGTAAAGAAGACTCATCATCCACTGAGTTTGTAGAAAAACGGAGAGCAGCTCTTGAAA GGTATCTTCAAAGAACAGTAAAACATCCAACTTTACTACAGGATCCTGATTTAAGGCAGTTCTTGGAAAGTTCAG AGCTGCCTAGAGCAGTTAATACACAGGCTCTGAGTGGAGCAGGAATATTGAGGATGGTGAACAAGGCTGCCGACG CTGTCAACAAAATGACAATCAAGATGAATGAATCGGATGCATGGTTTGAAGAAAAGCAGCAGCAATTTGAGAATC TGGATCAGCAACTTAGGAAACTTCATGTCAGTGTTGAAGCCTTGGTCTGTCATAGAAAAGAACTTTCAGCCAACA CAGCTGCCTTTGCTAAAAGTGCTGCCATGTTAGGTAATTCTGAGGATCATACTGCTTTATCTAGAGCTTTGTCTC AGCTTGCAGAGGTTGAGGAGAAGATAGACCAGTTACATCAAGAACAAGCTTTTGCTGACTTTTATATGTTTTCAG AACTACTTAGTGACTACATTCGTCTTATTGCTGCAGTGAAAGGTGTGTTTTGACCATCGAATGAAGTGCTGGCAGA AATGGGAAGATGCTCAAATTACTTTGCTCAAAAAACGTGAAGCTGAAGCAAAAATGATGGTTGCTAACAAACCAG ATAAAATACAGCAAGCTAAAAATGAAATAAGAGAGTGGGAGGCGAAAGTGCAACAAGGGGAAAGAGATTTTGAAC TCAAGTACTTAGAATCACTAGTTCAAACAACAACAGCTGATAAAATACTGGGAAGCATTCCTACCTGAAGCCA AAGCCATTGCCTAGCAATAAGATTGTTGCCGTTAAGAAGACCTTGGATGTTGTTCCAGTTATGCTGGATTCCACA CACACACACACACACACACACACCACTCTGACATTTTATTACAAGCTGCATGTCCTGACCCTCTTTGAATTAAG TGGACTGTGGCATGACATTCTGCAATACTTTGCTGAATTGAACACTATTGTGTCTTAAATACTTGCACTAAATAG TGCACTGCAAGACCAGAAAATTTTACAATATTTTTTCTTTACAATATGTTCTGTAGTATGTTTACCCTCTTTATG **AAGTGAATTACCAATGCTTTGAATAATGTTCACTTATACATTCCTGTACAGAAATTACGATTTTGTGATTACAGT** AATAAAATGATATTCCTTGTG

MAAEREPPPLGDGKPTDFEDLEDGEDLFTSTVSTLESSPSSPEPASLPAEDISANSNGPKPTEVVLDDDREDLFA EATEEVSLDSPEREPILSSEPSPAVTPVTPTTLIAPRIESKSMSAPVIFDRSREEIEEEANGDIFDIEIGVSDPE KVGDGMNAYMAYRVTTKTSLSMFSKSEFSVKRRFSDFLGLHSKLASKYLHVGYIVPPAPEKSIVGMTKVKVGKED SSSTEFVEKRRAALERYLQRTVKHPTLLQDPDLRQFLESSELPRAVNTQALSGAGILRMVNKAADAVNKMTIKMN ESDAWFEEKQQQFENLDQQLRKLHVSVEALVCHRKELSANTAAFAKSAAMLGNSEDHTALSRALSQLAEVEEKID QLHQEQAFADFYMFSELLSDYIRLIAAVKGVFDHRMKCWQKWEDAQITLLKKREAEAKMMVANKPDKIQQAKNEI REWEAKVQQGERDFEQISKTIRKEVGRFEKERVKDFKTVIIKYLESLVQTQQQLIKYWEAFLPEAKAIA

TGAAAGAGCTGGGGCTCCGCGAGGAAAACGAGGCCGTGTATAATGGAAGCTGGGGAGGCCGGGGAGAGGTTATTA CGACCTATTGCCCTGCTAACAACGAGCCAATAGCAAGAGTCCGACAGGCCAGTGTGGCAGACTATGAAGAAACTG TAAAGAAAGCAAGAGAAGCATGGAAAATCTGGGCAGATATTCCTGCTCCAAAACGAGGAGAAATAGTAAGACAGA TTGGCGATGCCTTGCGGGAGAAGATCCAAGTACTAGGAAGCTTGGTGTCTTTTGGAGATGGGGAAAATCTTAGTGG AAGGTGTGGGTGAAGTTCAGGAGTATGTGGATATCTGTGACTATGCTGTTGGTTTATCAAGGATGATTGGAGGAC CTATCTTGCCTTCTGAAAGATCTGGCCATGCACTGATTGAGCAGTGGAATCCCGTAGGCCTGGTTGGAATCATCA CGGCATTCAATTTCCCTGTGGCAGTGTATGGTTGGAACAACGCCATCGCCATGATCTGTGGAAATGTCTGCCTCT GGAAAGGAGCTCCAACCACTTCCCTCATTAGTGTGGCTGTCACAAAGATAATAGCCAAGGTTCTGGAGGACAACA AGCTGCCTGGTGCAATTTGTTCCTTGACTTGTGGTGGAGCAGATATTGGCACAGCAATGGCCAAAGATGAACGAG TGAACCTGCTGTCCTTCACTGGGAGCACTCAGGTGGGAAAACAGGTGGGCCTGATGGTGCAGGAGAGGTTTGGGA GAAGTCTGTTGGAACTTGGAGGAAACAATGCCATTATTGCCTTTGAAGATGCAGACCTCAGCTTAGTTGTTCCAT CAGCTCTCTCGCTGCTGTGGGAACAGCTGGCCAGAGGTGTACCACTGCGAGGCGACTGTTTATACATGAAAGCA TCCATGATGAGGTTGTAAACAGACTTAAAAAGGCCTATGCACAGATCCGAGTTGGGAACCCATGGGACCCTAATG GTGGCACAGTGGTCTATGGGGGCAAGGTTATGGATCGCCCTGGAAATTATGTAGAACCGACAATTGTGACAGGTC TTGGCCACGATGCGTCCATTGCACACACAGAGACTTTTGCTCCGATTCTCTATGTCTTTAAATTCAAGAATGAAG AAGAGGTCTTTGCATGGAATAATGAAGTAAAACAGGGACTTTCAAGTAGCATCTTTACCAAAGATCTGGGCAGAA TCTTTCGCTGGCTTGGACCTAAAGGATCAGACTGTGGCATTGTAAATGTCAACATTCCAACAAGTGGGGCTGAGA TTGGAGGTGCCTTTGGAGGAGAAAAGCACTGGTGGTGGCAGGGAGTCTGGCAGTGATGCCTGGAAACAGTACA TGAGAAGGTCTACTTGTACTATCAACTACAGTAAAGACCTTCCTCTGGCCCAAGGAATCAAGTTTCAGTAAAGGT GTTTTAGATGAACATCCCTTAATTTGAGGTGTTCCAGCAGCTGTTTTTGGAGAAGACAAAGAAAATTAAAGTTTT CCCTGAATAAATGCATTATTATGACTGTGACAGTGACTAATCCCCCTATGACCCCAAAGCCCTGATTAAATCAAG AGATTCCTTTTTTAAAAATCAAAATAAAATTGTTACAACATAGCCATAGTTACT

# FIGURE 1670

AGCTGCTCATCCAGAAGTTCCTCAGCCTGTACGGCGACCAGATCGACATGCACCGCAAATTCGTGGTGCAGCTGT TGCCGTTGCAGATCCAGCTCACTACCCTGGGAAATCTTACACCTTCAAGCACTGTGTTTTTCTGCTGTGATATGC AGGAAAGGTTCAGACCAGCCATCAAGTATTTTGGGGATATTATTAGCGTGGGACAGAGATTGTTGCAAGGGGCCC GGATTTTAGGAATTCCTGTTATTGTAACAGAACAATACCCTAAAGGTCTTGGGAGCACGGTTCAAGAAATTGATT TAACAGGTGTAAAACTGGTACTTCCAAAGACCAAGTTTTCAATGGTATTACCAGAAGTAGAAGCGGCATTAGCAG AGATTCCCGGAGTCAGGAGTGTTGTATTATTTGGAGTAGAAACTCATGTGTGCATCCAACAAACTGCCCTGGAGC TAGTTGGCCGAGGAGTCGAGGTTCACATTGTTGCTGATGCCACCTCATCAAGAAGCATGATGGACAGGATGTTTG  $\tt CCCTCGAGCGTCTCGCTCGAACCGGGATCATAGTGACCACGAGTGAGGCTGTTCTGCTTCAGCTGGTAGCTGATA$ AGGACCATCCAAAATTCAAGGAAATTCAGAATCTAATTAAGGCGAGTGCTCCAGAGTCGGGTCTGCTTTCCAAAG TATAGGACATTTGAAGAACTGGTATGCTACTCACTGGTGAAGGACAGTCAGGTGAAGGACTGTAAGCCCACACAA GCTCTTCTTATCTCTACTAGAATTAAAATGTTAAGTCAAAAACGGCTCCTTTTTTTGCGCCTCCTAGTGAAACTTA  ${\tt ACCAGCTAGACCATTTGAGTACCAGCATTTAGTTACAAACGTCAAAGGCTTCCGGTGCTGCTTACCTTCTTTTT}$ TGTTAATGTGCTTTTATTTATTAAAAAAAATTACAATGAAGATGCCTGTTTTGTCTCTACTGTGTACTCTGATCG TATCTTTCCAAAGTGCAGACTCTTGTGAAGTTTTCTTAAATTGTTCACTTTAAAGAAAATGACGTACCAACAATG AATAAGATTATTGCATATGAATTTACCCACAGGACTCTGAATCATGTTACCCACTCCCCTCACAATGTTGTCCAC TTATTTTGGTCACTATTACTAAATCTCTGTTAATATTCTCTCTTTTAACTGAAAAGGGATGGGATAGAAGGGTTT  ${\tt GCAATGCCATATTATTGGTGGAGGGCTGTTTTAACATCTTTGAAGTATGGCTTGCTGAATATCTTTACCAACATC}$  $\tt TTGAATATATTCTAGTGTCCACAAGATTTAGCAAAAAGATAAAGCTTGGGTGGAATATCATTTTAAAATGTTC$ ATGTTCTGTTCTATATTTTCTTCACCTACTCTCCAAATATTGTAATGCAAAAAGTCTCAGTAATGATTTGGTAGT TTTCAAATATGTGAAATGTGAAACTGCTGTCTTTTATATTAAAGTAATTAAAGAAAA

 $\texttt{GCTTGCCCGTCGGTCGCTCGGTGCGCGTCGTCCCGCTCC} \underline{\textbf{ATG}} \texttt{GCGCTCTTCGTGCGGCTGCTGGCTC}$ AGCACAGCAGGCTCCGGGGCCCCAGCACGCCCCAACGTGTGCTGCAGAAGGTTATTGGCACTAATAGGA AGTACTTCACCAACTGCAAGCAGTGGTACCAAAGGAAAATCTGTGGCAAATCAACAGTCATCAGCTACGAGTGCT GTCCTGGATATGAAAAGGTCCCTGGGGAGAAGGGCTGTCCAGCAGCCCTACCACTCTCAAACCTTTACGAGACCC TGGGAGTCGTTGGATCCACCACCACTCAGCTGTACACGGACCGCACGGAGAAGCTGAGGCCTGAGATGGAGGGGC CCGGCAGCTTCACCATCTTCGCCCCTAGCAACGAGGCCTGGGCCTCCTTGCCAGCTGAAGTGCTGGACTCCCTGG TGAAACACGGCATGACCCTCACCTCTATGTACCAGAATTCCAACATCCAGATCCACCACTATCCTAATGGGATTG TCATCTCCACCATCACCAACAACATCCAGCAGATCATTGAGATCGAGGACACCTTTGAGACCCTTCGGGCTGCTG TGGCTGCATCAGGGCTCAACACGATGCTTGAAGGTAACGGCCAGTACACGCTTTTGGCCCCGACCAATGAGGCCT TCGAGAAGATCCCTAGTGAGACTTTGAACCGTATCCTGGGCGACCCAGAAGCCCTGAGAGACCTGCTGAACAACC TGGAGGTGGGCTGCAGCGGGACATGCTCACTATCAACGGGAAGGCGATCATCTCCAATAAAGACATCCTAGCCA CCAACGGGGTGATCCACTACATTGATGAGCTACTCATCCCAGACTCAGCCAAGACACTATTTGAATTGGCTGCAG AGTCTGATGTGTCCACAGCCATTGACCTTTTCAGACAAGCCGGCCTCGGCAATCATCTCTCTGGAAGTGAGCGGT TGACCCTCCTGGCTCCCCTGAATTCTGTATTCAAAGATGGAACCCCTCCAATTGATGCCCCATACAAGGAATTTGC TTCGGAACCACATAATTAAAGACCAGCTGGCCTCTAAGTATCTGTACCATGGACAGACCCTGGAAACTCTGGGCG GCAAAAACTGAGAGTTTTTGTTTATCGTAATAGCCTCTGCATTGAGAACAGCTGCATCGCGGCCCACGACAAGA GGGGGAGGTACGGGACCCTGTTCACGATGGACCGGGTGCTGACCCCCCCAATGGGGACTGTCATGGATGTCCTGA AGGGAGACAATCGCTTTAGCATGCTGGTAGCTGCCATCCAGTCTGCAGGACTGACGGAGACCCTCAACCGGGAAG GAGTCTACACAGTCTTTGCTCCCACAAATGAAGCCTTCCGAGCCCTGCCACCAAGAGAACGGAGCAGACTCTTGG GAGATGCCAAGGAACTTGCCAACATCCTGAAATACCACATTGGTGATGAAATCCTGGTTAGCGGAGGCATCGGGG CCCTGGTGCGGCTAAAGTCTCTCCAAGGTGACAAGCTGGAAGTCAGCTTGAAAAAACAATGTGGTGAGTGTCAACA AGGAGCCTGTTGCCGAGCCTGACATCATGGCCACAAATGGCGTGGTCCATGTCATCACCAATGTTCTGCAGCCTC CAGCCAACAGACCTCAGGAAAGAGGGGATGAACTTGCAGACTCTGCGCTTGAGATCTTCAAACAAGCATCAGCGT TTGAAGCACTACAGGAGGAATGCACCACGGCAGCTCTCCGCCAATTTCTCTCAGATTTCCACAGAGACTGTTTGA ATGTTTTCAAAACCAAGTATCACACTTTAATGTACATGGGCCGCACCATAATGAGATGTGAGCCTTGTGCATGTG ACTTGGATGTCACTGCCTGACATTCACTTCCAGAGAGGACCTATCCCAAATGTGGAATTGACTGCCTATGCCAAG TCCCTGGAAAAGGAGCTTCAGTATTGTGGGGCTCATAAAACATGAATCAAGCAATCCAGCCTCATGGGAAGTCCT GGCACAGTTTTTGTAAAGCCCTTGCACAGCTGGAGAAATGGCATCATTATAAGCTATGAGTTGAAATGTTCTGTC GAGCTTAGATTTCCCTATTGTGACAGAGCCATGGTGTTTTGTAATAATAAAACCAAAGAAACATA

# FIGURE 1672

MALFVRLLALALALAGPAATLAGPAKSPYQLVLQHSRLRGRQHGPNVCAVQKVIGTNRKYFTNCKQWYQRKICG KSTVISYECCPGYEKVPGEKGCPAALPLSNLYETLGVVGSTTTQLYTDRTEKLRPEMEGPGSFTIFAPSNEAWAS LPAEVLDSLVSNVNIELLNALRYHMVGRRVLTDELKHGMTLTSMYQNSNIQIHHYPNGIVTVNCARLLKADHHAT NGVVHLIDKVISTITNNIQQIIEIEDTFETLRAAVAASGLNTMLEGNGQYTLLAPTNEAFEKIPSETLNRILGDP EALRDLLNNHILKSAMCAEAIVAGLSVETLEGTTLEVGCSGDMLTINGKAIISNKDILATNGVIHYIDELLIPDS AKTLFELAAESDVSTAIDLFRQAGLGNHLSGSERLTLLAPLNSVFKDGTPPIDAHTRNLLRNHIIKDQLASKYLY HGQTLETLGGKKLRVFVYRNSLCIENSCIAAHDKRGRYGTLFTMDRVLTPPMGTVMDVLKGDNRFSMLVAAIQSA GLTETLNREGVYTVFAPTNEAFRALPPRERSRLLGDAKELANILKYHIGDEILVSGGIGALVRLKSLQGDKLEVS LKNNVVSVNKEPVAEPDIMATNGVVHVITNVLQPPANRPQERGDELADSALEIFKQASAFSRASQRSVRLAPVYQ KLLERMKH

CCTGGGGCTTCCGCCTGGTGGGCGGCCGGGACTTCAGCGCGCCCCTCACCATCTCACGGGTCCATGCTGGCAGCA AGGCTGCATTGGCTGCCCTGTGCCCAGGAGACCTGATCCAGGCCATCAATGGTGAGAGCACAGAGCTCATGACAC GCTGGCCCAGTGCCCCTGATGACAGCAAGGCTCAGGCACACAGGATCCACATCGATCCTGAGATCCAGGACGGCA GCCCAACAACCAGCAGGCGCCCTCAGGCACCGGGACTGGGCCAGAAGATGGCAGACCAAGCCTGGGATCTCCAT ATGGACAACCCCCTCGCTTTCCAGTCCCTCACAATGGCAGCGAGGCCACCCTGCCAGCCCAGATGAGCACCC TGCATGTGTCTCCACCCCCAGCGTGACCCAGCCAGAGGCCTCCCGCGGAGCCGGGACTGCAGAGTCGACCTGG GCTCCGAGGTGTACAGGATGCTGCGGGAGCCAGCCGAGCCCGTGGCCGCGGAGCCCAAGCAGTCAGGCTCCTTCC GCTACTTGCAGGGCATGCTAGAGGCCGGCGAGGGCGGGGATTGGCCCGGGCCTGGCGGCCCCCGGAACCTCAAGC CCACGGCCAGCAAGCTGGGCGCTCCGCTGAGCGGCCTGCAGGGGCTGCCCGAGTGCACGCGCTGCGGCCACGGCA TCGTGGGCACCATCGTCAAGGCACGGGACAAGCTCTACCATCCCGAGTGCTTCATGTGCAGTGACTGCGGCCTGA ACCTCAAGCAGCGTGGTTACTTCTTCTGGACGAGCGGCTCTACTGTGAGAGCCACGCCAAGGCGCGCGTGAAGC CACGCCTGCTTCTTAAGGTCCCTGCTCGGCCGGTGTAAATATGTTTCACCCTGTCCCTCTAATAAAGCTCCTCTG TGCTTAGGTGCCAGGCATGTCCTAGGCTCTGGGTGCAGTAGTGAGCAGGACGGGTACCATGCTGCCCTGAAGGGG CCACAGCCTGGGTGGAAGGCAGACCTGAATCACAACGGGCCAGCTCTAGTAATACGAAGGTGAGGTCTGGGATGC TGCGTGCGGCGCGACGACAGGAGGTATGACCTGGGTGGGGTCAGGGAAAGTCTTAGCTGAGAACTAAGAGATGAG GGAGGCACAAACTCTGCACGGGGGAACTGTGTGTGCAAAGGTGAGCTGGGGGCCGAGAAAGGCCTCTGTGGCCGTC ATCGGCACTAGCGGGTTGGGGGTGGTGGGGGTGCTGGCAGCCTCAGGAGCGATCGCTCCCCTGGAGAGGGTGA TTGAGTGTGGAGATCACCGGGGCCGCCGCGGGCCGTCTGCACTTCTGTTCCAGGTTTTTCTGGCATTTTCTGTTC CAGGTTTCTTCCACCCACGAGCACTTTATTCTCCTCCGAGACCCCCTTTTCTTCCCCTTCCTCTCCCACCAGG GCCCTCCAAGAGGCTCCCTCCTGTCTCTAAGTCAATTCCACCCCTCCTCGAAGTCCCGGCTTCCACCCCTCTCCT CAGAGTCCCGGCGTTTACCTCGTGGTGTTTTGCCTTGGGCCTTTCATGCCCCGGCTGCACACATCGTCTGTGAA TTGTGGCTGTTCACTCCCGAGGATGTGTCCTAGACTCCGGGTCGCGTGGATCTACCCTCTAGTTTACTTGCTCGG GAGAAGAAACTGACTCGTTTTATTTAGTGCCTATTTAGCGAGCCCAGAGTAACGTACATTTGTGCTGTTTTCAAT TTTGTGCTATCGCAAATCACAAAAAACTGTTATCAATTCACATTCATCATCAGCACGAGACCCATTTCCTTGTG CTCCTGCCAGCTCAGGATATTATGTTTCTTTTTTCATTTTTGCCAGTCTGTTAAGTAAAATGTCATATGCGTTTG TTTTAA

MPHSVTLRGPSPWGFRLVGGRDFSAPLTISRVHAGSKAALAALCPGDLIQAINGESTELMTHLEAQNRIKGCHDH LTLSVSRPEGRSWPSAPDDSKAQAHRIHIDPEIQDGSPTTSRRPSGTGTGPEDGRPSLGSPYGQPPRFPVPHNGS SEATLPAQMSTLHVSPPPSADPARGLPRSRDCRVDLGSEVYRMLREPAEPVAAEPKQSGSFRYLQGMLEAGEGGD WPGPGGPRNLKPTASKLGAPLSGLQGLPECTRCGHGIVGTIVKARDKLYHPECFMCSDCGLNLKQRGYFFLDERLYCESHAKARVKPPEGYDVVAVYPNAKVELV

CGGCAACCTCTGCCTTCTTCCACTCGGAGTCGCGCTCCGCGCGCCCTCACTGCAGCCCCTGCGTCGCC GGGACCCTCGCGCGCGACCGCCGAATCGCTCCTGCAGCAGAGCCAACATGCCCATCACTCGGATGCGCATGAGAC CCTGGCTAGAGATGCAGATTAATTCCAACCAAATCCCGGGGCTCATCTGGATTAATAAAGAGGAGATGATCTTCC TTCACACAGGCCGATACAAAGCAGGGGAAAAGGAGCCAGATCCCAAGACGTGGAAGGCCAACTTTCGCTGTGCCA TGAACTCCCTGCCAGATATCGAGGAGGTGAAAGACCAGAGCAGGAACAAGGGCAGCTCAGCTGTGCGAGTGTACC CCAAGAGGAAGTCATGTGGGGATTCCAGCCCTGATACCTTCTCTGATGGACTCAGCAGCTCCACTCTGCCTGATG ACCACAGCAGCTACACAGTTCCAGGCTACATGCAGGACTTGGAGGTGGAGCAGGCCCTGACTCCAGCACTGTCGC CATGTGCTGTCAGCAGCACTCTCCCCGACTGGCACATCCCAGTGGAAGTTGTGCCGGACAGCACCAGTGATCTGT ACAACTTCCAGGTGTCACCCATGCCCTCCACCTCTGAAGCTACAACAGATGAGGATGAGGAAGGGAAATTACCTG AGGACATCATGAAGCTCTTGGAGCAGTCGGAGTGGCAGCCAACAAACGTGGATGGGAAGGGGTACCTACTCAATG AACCTGGAGTCCAGCCCACCTCTGTCTATGGAGACTTTAGCTGTAAGGAGGAGCCAGAAATTGACAGCCCAGGGG TGACCCCAGTCCGGTTGCCCTCCATCCAGGCCATTCCCTGTGCACCGTAGCAGGGCCCCTGGGCCCCTCTTATTC CTCTAGGCAAGCAGGACCTGGCATCATGGTGGATATGGTGCAGAGAAGCTGGACTTCTGTGGGCCCCTCAACAGC AGTGTCTGGGTTTTTCTTGTGGTGTAAAGCTGGCCCTGCCTCCTGGGAAGATGAGGTTCTGAGACCAGTGTATCA GGTCAGGGACTTGGACAGGAGTCAGTGTCTGGCTTTTTCCTCTGAGCCCAGCTGCCTGGAGAGAGGGTCTCGCTGTC AAGAGAAAATTGCACTAAATGAATCTCGTTCCCAAAGAACTACCCCCTTTTCAGCTGAGCCCTGGGGGACTGTTCC AAAGCCAGTGAAATGTGAAGGAAAGTGGGGTCCTTCGGGGGCGATGCTCCCTCAGCCTCAGAGGAGCTCTACCCTG CTCCCTGCTTTGGCTGAGGGGCTTGGGAAAAAAACTTGGCACTTTTTCGTGTGGATCTTGCCACATTTCTGATCA GAGGTGTACACTAACATTTCCCCCGAGCTCTTGGCCTTTGCATTTATTATACAGTGCCTTGCTCGGCGCCCACC ACCCCTCAAGCCCCAGCAGCCCTCAACAGGCCCAGGGAAGTGTGAGCGCCTTGGTATGACTTAAAATTGG AAATGTCATCTAACCATTAAGTCATGTGTGAACACATAAGGACGTGTGTAAATATGTACATTTGTCTTTTTATAA AAAGTAAATTGTT

WO 2004/030615 PCT/US2003/028547

## 1807/6881 FIGURE 1676

MPITRMRMRPWLEMQINSNQIPGLIWINKEEMIFQIPWKHAAKHGWDINKDACLFRSWAIHTGRYKAGEKEPDPK
TWKANFRCAMNSLPDIEEVKDQSRNKGSSAVRVYRMLPPLTKNQRKERKSKSSRDAKSKAKRKSCGDSSPDTFSD
GLSSSTLPDDHSSYTVPGYMQDLEVEQALTPALSPCAVSSTLPDWHIPVEVVPDSTSDLYNFQVSPMPSTSEATT
DEDEEGKLPEDIMKLLEQSEWQPTNVDGKGYLLNEPGVQPTSVYGDFSCKEEPEIDSPGGDIGLSLQRVFTDLKN
MDATWLDSLLTPVRLPSIQAIPCAP

WO 2004/030615 PCT/US2003/028547

#### 1808/6881 FIGURE 1677

GCCGCTCGCTCGGCTCCCTGGCTCGGCTCCCTGCCTCGCGTCGCAGCCCCGCCGTAGCCGCCTCCGAG TTCACCAAGGGCTATGGATTTGGCTTAATAAAGCTTGATTTGAAAACAAAATCTGAGAATGGATTGGAATTTACA AGCTCAGGCTCAGCCAACACTGAGACCACCAAAGTGACGGGCAGTCTGGAAACCAAGTACAGATGGACTGAGTAC GGCCTGACGTTTACAGAGAAATGGAATACCGACAATACACTAGGCACCGAGATTACTGTGGAAGATCAGCTTGCA TACAAGCGGGAGCACATTAACCTGGGCTGCGACATGGATTTCGACATTGCTGGGCCTTCCATCCGGGGTGCTCTG GTGCTAGGTTACGAGGGCTGGCTGGCCGGCTACCAGATGAATTTTGAGACTGCAAAATCCCGAGTGACCCAGAGC AACTTTGCAGTTGGCTACAAGACTGATGAATTCCAGCTTCACACTAATGTGAATGACGGGACAGAGTTTGGCGGC TCCATTTACCAGAAAGTGAACAAGAAGTTGGAGACCGCTGTCAATCTTGCCTGGACAGCAGGAAACAGTAACACG CGCTTCGGAATAGCAGCCAAGTATCAGATTGACCCTGACGCCTGCTTCTCGGCTAAAGTGAACAACTCCAGCCTG ATAGGTTTAGGATACACTCAGACTCTAAAGCCAGGTATTAAACTGACACTGTCAGCTCTTCTGGATGGCAAGAAC GTCAATGCTGGTGGCCACAAGCTTGGTCTAGGACTGGAATTTCAAGCA<u>TAA</u>ATGAATACTGTACAATTGTTTAAT TTTAAACTATTTTGCAGCATAGCTACCTTCAGAATTTAGTGTATCTTTTAATGTTGTATGTCTGGGATGCAAGTA TTGCTAAATATGTTAGCCCTCCAGGTTAAAGTTGATTCAGCTTTAAGATGTTACCCTTCCAGAGGTACAGAAGAA ACCTATTTCCAAAAAAGGTCCTTTCAGTGGTAGACTCGGGGAGAACTTGGTGGCCCCTTTGAGATGCCAGGTTTC TTTTTTATCTAGAAATGGCTGCAAGTGGAAGCGGATAATATGTAGGCACTTTGTAAATTCATATTGAGTAAATGA ATGAAATTGTGATTTCCTGAGAATCGAACCTTGGTTCCCTAACCCTAATTGATGAGAGGCTCGCTGCTTGATGGT GTGTACAAACTCACCTGAATGGGACTTTTTTAGACAGATCTTCATGACCTGTTCCCACCCCAGTTCATCATCATC TCTTTTACACCAAAAGGTCTGCAGGGTGTGGTAACTGTTTCTTTTGTGCCATTTTGGGGTGGAGAAGGTGGATGT AGCTTCCAGGAGCTCCAGCTATAAGCTTGGAAGTGTCTGTGTGATTGTAATCACATGGTGACAACACTCAGAATC TAAATTGGACTTCTGTTGTATTCTCACCACTCAATTTGTTTTTTTAGCAGTTTAATGGGTACATTTTAGAGTCTTC CATTTTGTTGGAATTAGATCCTCCCCTTCAAATGCTGTAATTAACAACACTTAAAAAAACTTGAATAAAATATTGA AACCTC

MAVPPTYADLGKSARDVFTKGYGFGLIKLDLKTKSENGLEFTSSGSANTETTKVTGSLETKYRWTEYGLTFTEKW
NTDNTLGTEITVEDQLARGLKLTFDSSFSPNTGKKNAKIKTGYKREHINLGCDMDFDIAGPSIRGALVLGYEGWL
AGYQMNFETAKSRVTQSNFAVGYKTDEFQLHTNVNDGTEFGGSIYQKVNKKLETAVNLAWTAGNSNTRFGIAAKY
QIDPDACFSAKVNNSSLIGLGYTQTLKPGIKLTLSALLDGKNVNAGGHKLGLGLEFQA

 ${\tt MPSIQLQSFDGEIFAVDVEIAKQSVTIKTTLEDLGMDDEGDDPVPLPNVNAAVLKKVIQWCTHHKDDPPPPEDDE} \\ {\tt NKEKQTDDIPVWDQEFLKVAQGTLFELIRAANYLDIKGLLDVTCKTVANMIKGKTPEEIRKTFNIKNDFTEEEEA} \\ {\tt QVRKENQWCEEK} \\$ 

### 1812/6881 FIGURE 1681A

CGCTGGGATGGCCGCCACAGCTGTAGGTGCTAGTGTTTAGCGCTGGTCTTTGCCGGGCGTTGAGGGCAGCTC AGCCTCCTTGTTTGTCCGGTTCGCCTGTGCGTGGTACTCAAGGGCACCAGTATTCCCGCGGTCGGCAGCCGGGAGTCACGCCACTATCGAAAACGATCGGCATCCCGGGGTCGCTCTGGAAGTCGGTCTAGAAGTCGCTCACCC AGAAGCCGAGAGCGAAGAAGATCTCGAAGTAGAGACAGGAGACGCTCAAGGAGTAGAAGCCGGGGCCGGCGATCC CGATCCTCCAGTCCTGGAAATAAAAGCAAGAAAACTGAGAATAGATCTAGGTCCAAAGAGAAAACTGATGGTGGG GAAAGTTCTAAAGAGAAAAAAAAGACAAAGATGACAAGGAGGATGAAAAAGAAAAAGATGCTGGCAACTTTGAC CAGAATAAGCTGGAAGAAGAAATGAGAAAAGCGAAAAGAAAAGAGTAGAAAAATGGCGAGAAGAGCAACGTAAAAAG GCTATGGAAAACATAGGAGAACTGAAAAAGGAAATCGAAGAGATGAAACAAGGGAAAAAGTGGAGTTTAGAGGAC GATGATGATGACGAAGATGATCCTGCAGAAGCTGAAAAGGAGGGAAATGAAATGGAGGGTGAGGAGTTAGATCCA TTAGATGCTTACATGGAAGAAGTGAAAGAGGAAGTAAAAAATTTAACATGAGAAGTGTAAAAAGGTGGTGGGGGA AATGAAAAGAAGTCTGGGCCAACGGTCACAAAAGTTGTCACTGTTGTGACAACCAAAAAAGCAGTTGTGGATTCT GATAAGAAGAAGGTGAGCTGATGGAGAATGACCAGGATGCCATGGAGTATTCTTCAGAGGAGGAAGAAGTTGAT CTTCAGACAGCCCTTACAGGGTATCAAACAAAACAGCGAAAGCTTCTAGAACCAGTTGATCATGGAAAAATTGAG TATGAGCCATTTAGGAAAAACTTCTATGTTGAAGTTCCAGAACTAGCAAAAATGTCTCAAGAAGAGGGTAAATGTG TTTCGATTGGAAATGGAGGGCATTACAGTTAAAGGAAAAGGTTGCCCCAAACCAATTAAATCCTGGGTCCAGTGT GGAATTTCCATGAAGATCTTAAATTCCCTCAAGAAGCATGGCTATGAAAAGCCCACGCCCATCCAAACCCAAGCT ATTCCTGCTATAATGTCTGGACGAGATTTGATTGGCATTGCCAAAACAGGAAGTGGAAAGACCATTGCTTTTCTG CCAACTCGAGAACTGGCTTTACAGATTACTAAAGAGTGTAAGAAGTTTTCCAAGACTTTGGGACTTAGAGTGGTC TGTGTTTACGGAGGAACAGGAATCAGTGAGCAGATTGCTGAGCTGAAAAGAGGTGCTGAAATTATTGTTTGCACA CCTGGTCGAATGATTGACATGTTAGCCGCTAACAGTGGTCGGGTCACAAATCTTCGAAGAGTGACATATGTTGTT TTAGATGAAGCAGACAGAATGTTTGACATGGGTTTTGAACCCCAGGTCATGCGCATCGTGGATAATGTTCGTCCT GATCGACAGACGGTTATGTTTTCAGCTACTTTCCCCAGAGCTATGGAGGCTTTGGCTCGCAGGATCCTCAGTAAA GAAAAGAAATTCTTGAAGTTACTTGAGCTTCTAGGCCATTATCAAGAGTCAGGATCTGTCATTATATTTGTGGAT AAGCAGGAACATGCTGATGGTCTTCTTAAGGATTTAATGAGAGCATCTTATCCTTGCATGTCTCTTCATGGAGGC ATTGATCAATATGACAGAGATAGCATCATAAATGACTTTAAGAATGGGACCTGCAAACTTCTTGTGGCTACCTCT GTTGCTGCCCGAGGTCTAGATGTGAAACATCTGATTCTTGTAGTAAATTATAGCTGCCCCAACCATTATGAGGAT TATGTACACAGAGCAGGCGGACTGGAAGAGCAGGAAACAAGGGTTATGCTTATACTTTTATCACAGAGGATCAA GCTCGCTATGCTGGTGACATAATTAAAGCTCTTGAATTGTCAGGGACTGCAGTACCTCCTGATTTAGAGAAACTG TGGAGTGATTTCAAAGATCAGCAGAAAGCTGAGGGGAAAATAATTAAAAAAGAGTAGTGGGTTCTCTGGTAAGGGA TTCAAGTTTGATGAAACAGAACAAGCTTTGGCTAATGAGAGGAAGAAGTTACAAAAAGCAGCTCTTGGTCTACAA GATTCAGATGATGAGGATGCTGCAGTTGATATTGATGAGCAAATTGAAAGCATGTTTAATTCAAAGAAGAGAGTA AAGGATATGGCTGCTCCTGGAACATCAAGTGTTCCTGCTCCAACTGCAGGAAATGCTGAGAAATTAGAAATTGCT AAGAGATTGGCTCTTAGAATCAATGCCCAGAAGAATTTGGGCATCGAGTCTCAGGTAGATGTGATGCAGCAGGCC ACCAATGCAATTCTTAGGGGTGGCACCATTCTGGCTCCCACTGTTTCTGCAAAAACCATTGCAGAACAACTTGCT GAAAAGATCAATGCCAAGCTCAATTATGTGCCGTTAGAGAAACAAGAAGAAGAAGAAGAAGACAGGATGGTGGACAGAAT GAATCTTTTAAGAGATATGAAGAAGTTAGAGATCAATGACTTCCCACAGACTGCTAGGTGGAAAGTTACCTCT AAGGAAGCTCTGCAGAGAATCAGTGAATACTCTGAAGCCGCAATTACAATCAGAGGAACCTACTTCCCTCCTGGC AAAGAACCCAAGGAAGGCGAGCGGAAGATTTACTTGGCAATTGAAAGTGCCAATGAACTGGCTGTGCAGAAAGCA TCTGCAGTTTACAATGTATTGTAAATGAAGATTTTTTAAATTCTATCTTGCTGATTTTTTTAAATATAAGAAAC AGAGTATGATGTCCTTTAATGTAAACTCAAATATCAATATTTTAAATGTCCGGATAATATTCTAGAGGTTTAAAA AATGGAAATATTTGAACTTTCTATTGAAGACAATAAAGTACACAAGTCGTTAAGGGGGCTATTCACTTTATCCTGT

## 1813/6881 FIGURE 1681B

 ${\tt ACTTTCAATGAAATTGTGATCATTTCCTAAGAAAAGGTAAAATTCACTATCATATTTTGTGTCCCCACCTTGATGTTACATGACTCTGGAACAATATGAACTGGATTTAAGAATGTTATAATAGAAGTCTTACAAAATGG}$ 

MGRESRHYRKRSASRGRSGSRSRSRSPSDKRSKRGDDRRSRSRDRDRRRERSRSRDKRRSRSRDRKRLRRSRSRE
RDRSRERRRSRSRDRRRSRSRSRGRRSRSSSPGNKSKKTENRSRSKEKTDGGESSKEKKKDKDDKEDEKEKDAGN
FDQNKLEEEMRKRKERVEKWREEQRKKAMENIGELKKEIEEMKQGKKWSLEDDDDDEDDPAEAEKEGNEMEGEEL
DPLDAYMEEVKEEVKKFNMRSVKGGGGNEKKSGPTVTKVVTVVTTKKAVVDSDKKKGELMENDQDAMEYSSEEEE
VDLQTALTGYQTKQRKLLEPVDHGKIEYEPFRKNFYVEVPELAKMSQEEVNVFRLEMEGITVKGKGCPKPIKSWV
QCGISMKILNSLKKHGYEKPTPIQTQAIPAIMSGRDLIGIAKTGSGKTIAFLLPMFRHIMDQRSLEEGEGPIAVI
MTPTRELALQITKECKKFSKTLGLRVVCVYGGTGISEQIAELKRGAEIIVCTPGRMIDMLAANSGRVTNLRRVTY
VVLDEADRMFDMGFEPQVMRIVDNVRPDRQTVMFSATFPRAMEALARRILSKPIEVQVGGRSVVCSDVEQQVIVI
EEEKKFLKLLELLGHYQESGSVIIFVDKQEHADGLLKDLMRASYPCMSLHGGIDQYDRDSIINDFKNGTCKLLVA
TSVAARGLDVKHLILVVNYSCPNHYEDYVHRAGRTGRAGNKGYAYTFITEDQARYAGDIIKALELSGTAVPPDLE
KLWSDFKDQQKAEGKIIKKSSGFSGKGFKFDETEQALANERKKLQKAALGLQDSDDEDAAVDIDEQIESMFNSKK
RVKDMAAPGTSSVPAPTAGNAEKLEIAKRLALRINAQKNLGIESQVDVMQQATNAILRGGTILAPTVSAKTIAEQ
LAEKINAKLNYVPLEKQEEERQDGGQNESFKRYEEELEINDFPQTARWKVTSKEALQRISEYSEAAITIRGTYFP
PGKEPKEGERKIYLAIESANELAVQKAKAEITRLIKEELIRLQNSYQPTNKGRYKVL

#### 1815/6881 FIGURE 1683A

GCTGCGGCTCCGCTCGCCAACGAGATCTTTCGAGATCTTCTCCGCCCCCGCTACCGGCGCCTCCTCTGCGG CCACTGAGCCGGAGCCGGCCTGAGCAGCGCTCTCGGTTGCAGTACCCACTGGAAGGACTTAGGCGCTCGCGTGGA CACCGCAAGCCCCTCAGTAGCCTCGGCCCAAGAGGCCTGCTTTCCACTCGCTAGCCCCGCCGGGGGTCCGTGTCC TGTCTCGGTGGCCGGACCCGGGCCCGAGCCGAGCAGTAGCCGGCGCCATGTCGGTGGTGGGCATAGACCTGGGC TTCCAGAGCTGCTACGTCGCTGTGGCCCGCCGCCGCGGCGCATCGAGACTATCGCTAATGAGTATAGCGACCGCTGC ACGCCGGCTTGCATTTCTTTTGGTCCTAAGAATCGTTCAATTGGAGCAGCAGCTAAAAGCCAGGTAATTTCTAAT GCAAAGAACACAGTCCAAGGATTTAAAAGATTCCATGGCCGAGCATTCTCTGATCCATTTGTGGAGGCAGAAAAA TCTAACCTTGCATATGATATTGTGCAGTTGCCTACAGGATTAACAGGTATAAAGGTGACATATATGGAGGAAGAG CGAAATTTTACCACTGAGCAAGTGACTGCCATGCTTTTGTCCAAACTGAAGGAGACAGCCGAAAGTGTTCTTAAG AAGCAGGATCTTCCTGCCTTAGAAGAGAAACCAAGAAATGTAGTTTTTGTAGACATGGGCCACTCTGCTTATCAA GTTTCTGTATGTGCATTTAATAGAGGAAAACTGAAAGTTCTGGCCACTGCATTTGACACGACATTGGGAGGTAGA AAATTTGATGAAGTGTTAGTAAATCACTTCTGTGAAGAATTTGGGAAGAAATACAAGCTAGACATTAAGTCCAAA ATCCGTGCATTATTACGACTCTCCAGGAGTGTGAGAAACTCAAGAAATTGATGAGTGCAAATGCTTCAGATCTC CCTTTGAGCATTGAATGTTTTATGAATGATGTTGATGTATCTGGAACTATGAATAGAGGCAAATTTCTGGAGATG ATTTATGCAGTGGAGATAGTTGGTGGTGCTACACGAATCCCTGCGGTAAAAGAGAAGATCAGCAAATTTTTCGGT AAAGAACTTAGTACAACATTAAATGCTGATGAAGCTGTCACTCGAGGCTGTGCATTGCAGTGTGCCATCTTATCG CCTGCTTTCAAAGTCAGAGAATTTTCTATCACTGATGTAGTACCATATCCAATATCTCTGAGATGGAATTCTCCA GCTGAAGAAGGGTCAAGTGACTGTGAAGTCTTTTCCAAAAATCATGCTGCTCCTTTCTCTAAAGTTCTTACATTT TATAGAAAGGAACCTTTCACTCTTGAGGCCTACTACAGCTCTCCTCAGGATTTGCCCTATCCAGATCCTGCTATA GCTCAGTTTTCAGTTCAGAAAGTCACTCCTCAGTCTGATGGCTCCAGTTCAAAAGTGAAAGTCAAAAGTTCGAGTA AATGTCCATGGCATTTTCAGTGTGTCCAGTGCATCTTTAGTGGAGGTTCACAAGTCTGAGGAAAATGAGGAGCCA ATGGAAACAGATCAGAATGCAAAGGAGGAAGAGAGATGCAAGTGGACCAGGAGGAACCACATGTTGAAGAGCAA CAGCAGCAGACACCAGCAGAAAATAAGGCAGAGTCTGAAGAAATGGAGACCTCTCAAGCTGGATCCAAGGATAAA AAGATGGACCAACCACCCAAGCCAAGAAGGCAAAAGTGAAGACCAGTACTGTGGACCTGCCAATCGAGAATCAG CTATTATGGCAGATAGACAGAGAGGTCCTCAACTTGTACATTGAAAATGAGGGTAAGATGATCATGCAGGATAAA CTGGAGAAGGAGCGGAATGATGCTAAGAACGCAGTGGAGGAATATGTGTATGAAATGAGAGACAAGCTTAGTGGT GAATATGAGAAGTTTGTGAGTGAAGATGATCGTAACAGTTTTACTTTGAAACTGGAAGATACTGAAAATTGGTTG TATGAGGATGGAGAAGACCAGCCAAAGCAAGTTTATGTTGATAAGTTGGCTGAATTAAAAAATCTAGGTCAACCT ATTAAGATACGTTTCCAGGAATCTGAAGAACGACCAAAATTATTTGAAGAACTAGGGAAACAGATCCAACAGTAT ATGAAAATAATCAGCTCTTTCAAAAACAAGGAGGACCAGTATGATCATTTGGATGCTGCTGACATGACAAAGGTA **ÇAAAAAGCACAAATGAAGCAATGGAGTGGATGAATAACAAGCTAAATCTGCAGAACAAGCAGAGTTTGACCATG** GATCCAGTTGTCAAGTCAAAAGAGATTGAAGCTAAAATTAAGGAGCTGACAAGTACTTGTAGCCCTATAATTTCA GGAGACAACCCAGGCCCCCAGGCTGCTGAGCAGGGTACAGACACGCTGTGCCTTCGGATTCAGACAAGAAGCTT TTTGTTCTAAATATCAACTAGCGCAAGTGAATACTGAAGATTTCTTAGTCAGTTTTTTAGGGGGATTTTCGGGGAGG GGAAATAGGTAATGTATGGAGCATTTTCACTTCTAAATAGTTAGATACAGAAATTAAGTGCATTGTATCTTTTTC ATAATGGTACTATTTAGAAGCCCAGTTAGTCTTACTGAGCTTATGCTTCACTCCTTTATGTTTAACCATGTGTCT ACAAGAATAAGTTTGTTTTGGAAAGTTGAGCTATAGCTACAGCTCTAGCTATCCAGCAGACTTTTCATTATGACT GGATGGGGTCCCCCTCTTTGTGAGGGCTGGAGCATGGCACGGCATGGATTAACACGGCAGAGGAACAAAGGTGTG TATAAATGCCATGTACTTCTCTTGGGAAAATAGACCCCCTTGCCTAGAGTAAGTTGTTAACTGAGGGCTTTAAAC CTGGAGGCTCTTCCTGAAAGTATGTTCATGAATACCCCCAAGCATCAAGGTCTAAATAATTTTCAGAAGATTAGAA TTGGGTAGATATACTGTTGGATATAGCCATGGTAAATTTAACTGAGGAATTAAATCCTTGTTAATTTTGGTGTAA

# FIGURE 1683B

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AGATTTGTATCCTGGCCTGTTTATTCAGGTGGGAGATGTTCTGTATAATTTTGAGGTATAGCTTGAACTCCTAGA ACAAGAGTTAAAAGTTCTTTTTAGCTCATTCACAATCACTTGTGTGTTAAGTGTTAATATCTGTCATGAACCTGC GAAATTAGTGTTAAAGAAGTGTGGTGCCTGATGTTATAACAACACCTCATTCTTAACTGTGTGGCCCAATGTCAGG TATACCAAAGCATTCCTCTGACTGCTTTTTGGGGCAGTGTTGACAGGAGTGAGGCATTTTGGAAACTCCAAGGGA AGCCTGTGTTTGAGGCCAGAGTTGGTACCTGCTTTAAGAAACTGTTACAGGGCTTGTTGGTAATGTTTTGAATCT TTGTAAAAATTGATATTCTGTATAACAGAGTGCCTCTCTGTTACTTTTGGCCTATGTTGTTAGAAATAAGATGCT ATCTTGCATAGTTAGAATTAAGCGTTTGTCCATCTCTAGATAACATTGAAAAGTTTGAGTGTTACAGGCTCTAAA  $\verb|CCTCGAGGCACCACAACAAGGCCAGGTTCTTAGCACATCCTCTGTTCTCTACCTGTCATGCTTCAAGAGTTCCAG|\\$ GGTGTGTGTGTGTGTGTGGGGAAGGGTGTGGGTGCTGGGATGGGGGTGAATTTCAAGTTGAAACACGATGA TGTGGTCTGCTCTCTCTTAGACAGGCTTTAAGACCAATTGGATTTCATGGAGGCCAGGACAGAGAGTGG TAATTGATGGCTTGTGTACAGACAAGCATTTATCCAGGTTGCGTTATCCAAACTGATTTGTTAAAGCTCCAGGTC ACGTTCTTACACTAAGAAAATCATTCAGTAAACATGAGACAAGTTTAGGAAAAACTAATAAAATAAACCTGTCTT **AAACTTG** 

MSVVGIDLGFQSCYVAVARAGGIETIANEYSDRCTPACISFGPKNRSIGAAAKSQVISNAKNTVQGFKRFHGRAF
SDPFVEAEKSNLAYDIVQLPTGLTGIKVTYMEEERNFTTEQVTAMLLSKLKETAESVLKKPVVDCVVSVPCFYTD
AERRSVMDATQIAGLNCLRLMNETTAVALAYGIYKQDLPALEEKPRNVVFVDMGHSAYQVSVCAFNRGKLKVLAT
AFDTTLGGRKFDEVLVNHFCEEFGKKYKLDIKSKIRALLRLSQECEKLKKLMSANASDLPLSIECFMNDVDVSGT
MNRGKFLEMCNDLLARVEPPLRSVLEQTKLKKEDIYAVEIVGGATRIPAVKEKISKFFGKELSTTLNADEAVTRG
CALQCAILSPAFKVREFSITDVVPYPISLRWNSPAEEGSSDCEVFSKNHAAPFSKVLTFYRKEPFTLEAYYSSPQ
DLPYPDPAIAQFSVQKVTPQSDGSSSKVKVKVRVNVHGIFSVSSASLVEVHKSEENEEPMETDQNAKEEEKMQVD
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EGKMIMQDKLEKERNDAKNAVEEYVYEMRDKLSGEYEKFVSEDDRNSFTLKLEDTENWLYEDGEDQPKQVYVDKL
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LQNKQSLTMDPVVKSKEIEAKIKELTSTCSPIISKPKPKVEPPKEEQKNAEQNGPVDGQGDNPGPQAAEQGTDTA

GACTGTCTACATTAGTAATTCCCAACTTGGGTCCGAAAGTGAACTTTTGCTGAAGCGAAGTAGCTAACCGCTTCC ATGTGCAAGGCAGGTTCCAGACTTCGGGGTGAGGAGGATTAACTGAAGGACCCCAGGGGAACCGGTGTGCTCACT GATCCGCCTCCAGGGCCACCGCCATCTCGAGCCGCGGTGGGAAGAAGAAGTCCACCAAGACGTCCAGGTCTGCCA AAGCAGGAGTCATCTTTCCCGTGGGGCGGATGCTGCGGTACATCAAGAAAGGCCACCCCAAGTACAGGATTGGAG AGCTGCTAAAAGGAGTCACCATAGCCAGTGGGGGTGTGTTACCCAACATCCACCCCGAGTTGCTAGCGAAGAAGC GGGGATCCAAAGGAAAGTTGGAAGCCATCATCACACCACCCCCAGCCAAAAAGGCCAAGTCTCCATCCCAGAAGA AGCCTGTATCTAAAAAAGCAGGAGGCAAGAAAGGGGCCCGGAAATCCAAGAAGCAGGGTGAAGTCAGTAAGGCAG CCAGCGCCGACAGCACAACCGAGGGCACACCTGCCGACGGCTTCACAGTCCTCTCCACCAAGAGCCTCTTCCTTG CCAATGCTGACATTGACCTTAAAGATGACCTAGGAAACACGCTGGAGAAGAAAGGTGGCAAGGAGTTTGTGGAAG CTGTCCTGGAACTCCGGAAAAAGAACGGGCCCTTGGAAGTAGCTGGAGCTGCTGTCAGCGCAGGCCATGGCCTGC CTGCCAAGTTTGTGATCCACTGTAATAGTCCAGTTTGGGGTGCAGACAAGTGTGAAGAACTTCTGGAAAAGACAG  ${\tt ACGGTTTTCCAAAGCAGACAGCTGAGCTGATTCTGAAGGCCATCTCCAGTTACTTCGTGTCTACAATGTCCT}$  $\tt CTTCCATCAAAACGGTGTACTTCGTGCTTTTTGACAGCGAGAGTATAGGCATCTATGTGCAGGAAATGGCCAAGC$ AATCCCCTTCACTCCTACTGGGAGGTGGGACCCCTTTCATTTTCAGTTTTGCTCATCTAGGGAAAATAAGGCTTT GGTTTCCAGTTTAATTGTTTTTGACCTTCTAAAATGTTTTTATGTTAGCACTGATAGTTGGCATTACTGTTGTTA AGCACTGTGTTCCAGACCGTGTCTGACTTAGTGTAACCTAGGAGATTTTATAGTTTTATTTTAATGAAACCCTGA TTGACGCACAGCAGTGGGGAGAACAGCGTCTTTTACCTGTCACCGAAGCCAGGAAGCCCCGTTTGTAAGCGTGTG TTGTGGTGCTTTATTGTACATCCTCCAGTGGCGTTCTTTTTACTCTAATGTTCTTTTGGTTTCCCCCCTCAGAAG AATCATGAATTTGCAACAGACCTAATTTTTGGTTACTTTTTGTCTTATTGATGGATTTGAAAATGAAAGATTTAA TAAGGCAAAGCAGAATCTGTTGTCCTTAATTATATTTGCAATTTGGAATTTGTGTGAGTTGATTTAGTAAAATGT 

MSSRGGKKKSTKTSRSAKAGVIFPVGRMLRYIKKGHPKYRIGVGAPVYMAAVLEYLTAEILELAGNAARDNKKGR VTPRHILLAVANDEELNQLLKGVTIASGGVLPNIHPELLAKKRGSKGKLEAIITPPPAKKAKSPSQKKPVSKKAG GKKGARKSKKQGEVSKAASADSTTEGTPADGFTVLSTKSLFLGQKLNLIHSEISNLAGFEVEAIINPTNADIDLK DDLGNTLEKKGGKEFVEAVLELRKKNGPLEVAGAAVSAGHGLPAKFVIHCNSPVWGADKCEELLEKTVKNCLALA DDKKLKSIAFPSIGSGRNGFPKQTAAQLILKAISSYFVSTMSSSIKTVYFVLFDSESIGIYVQEMAKLDAN

WO 2004/030615 PCT/US2003/028547

#### 1820/6881 FIGURE 1687

 $\verb|CCCGTCGGTGAGCGGGGGGGGGGCTCCAGCAACGGCTGGGCCCAAGCTGTGTAGAGGCCTTAACCAACGATAAC| \\$ GGCGGCGACGGCGAACCTCGGAGCTCGCAGGGCGGGGCCAAGGCCCGGGCCTTGGAGAATGGAGAATTCTCAGTT  ${\tt GACTCTGACGGACTGCGTGGTGGTGAATCCCCAGACCAAGCGCTCCCGTTGCTTTGGCTTCGTGACCTACTC}$ CAATGTGGAGGAGGCGGACGCCCATGCCCCCATGCCGTGGACGCAACACTGTGGAGCTGAAGCG  ${\tt GGCGGTGTCCCGGGGGGGGGGCCGGGCCCGGTGCCCACGCCAAGGTTAAGAAGCTCTTTGTCGGAGGCCTTAA}$ AGGAGACGTGGCTGAGGGCGACCTGATCGAGCACTTCTCGCAGTTTGGCACCGTGGAAAAGGCCGAGATTATTGC  $\tt CGACAAGCAGTCCGGCAAGAAGCGTGGATTCGGCTTCGTGTATTTCCAGAATCACGACGCGGCAGACAAGGCCGC$ GGTGGTCAAGTTCCATCCGATTCAGGGCCATCGCGTGGAGGTGAAGAAAGCAGTCCCCAAGGAGGATATCTACTC GAACGGCCTTTCCAAGGGCGGCGGCGGCGGTTACAACAGCTACGGTGGTTACGGCGGCGGCGGAGGCGGCGGCTA CAGCTACAGCCAGCATCAGTCCTCTATGGGCCCATGAAGAGCGGCGGCGGCGGCGGCGGTGGAGGCAGTAGCTG  ${\tt GGGCGGTCGCAGTAATAGTGGACCTTACAGAGGCGGCTATGGCGGTGGGGTGGCTATGGAGGCAGCTCCTTC}{{\tt TA}}$ <u>A</u>AAGAAAATTTAAAATGCCTGGGAGTGGCTATAGGGGTAGCTCTTTCCAACAGCCCAAGTGGGGTCAACTCCTAA GCCCCACCCCTCACACACCCCCTTCCCTGTTTTGCCCTTGGGGGAGCCACTTCTAAGGCTGCTTACCCTTGG GGGTGTTCCTCTATTTGCCTGCCACCTCTCTTGTCTCTCCCTCTGAAGATGGACTCGGCCCCACATACACATTTT TGTGTTACAGTCATTGATGGACTCTATTTTTTATTATTACTTGGACCTTGGTCGTTTTTATACTAGCAAAATGT TTGGGGTGGGGGTAGTTTACTTTGTTGTAAGGACTTGATAACCTGGCTACAGCGTTTTCTATGAAATCTACTTG GATCCCATGCCTGAAATTTGGAAGCATATGTACACAAATCATTTTTACGTTTTATTTTTAATAAATCATTGTGTT TGACCGTA

MENSQLCKLFIGGLNVQTSESGLRGHFEAFGTLTDCVVVVNPQTKRSRCFGFVTYSNVEEADAAMAASPHAVDGN TVELKRAVSREDSARPGAHAKVKKLFVGGLKGDVAEGDLIEHFSQFGTVEKAEIIADKQSGKKRGFGFVYFQNHD AADKAAVVKFHPIQGHRVEVKKAVPKEDIYSGGGGGGSRSSRGGRGGGRGGGRDQNGLSKGGGGGYNSYGGYGG GGGGGYNAYGGGGGGSSYGGSDYGNGFGGFGSYSQHQSSYGPMKSGGGGGGGSSWGGRSNSGPYRGGYGGGGGY GGSSF

CAGTGTTCCCCGCGCCCCGCATGTAACCCGGCCAGGCCCCGCAACGGTGTCCCCTGCAGCTCCAGCCCCGGGCT GCACCCCCCGCCCGACACCAGCTCTCCAGCCTGCTCGTCCAGGATGCCGGCCAAGGCCGAGATGCAGCTG ATGTCCCCGCTGCAGATCTCTGACCCGTTCGGATCCTTTCCTCACTCGCCCACCATGGACAACTACCCTAAGCTG GAGGAGATGATGCTGCTGAGCAACGGGGCTCCCCAGTTCCTCGGCGCCCGGGGGCCCCAGAGGGCAGCGGCAGC TTCAACCCTCAGGCGGACACGGGCGAGCAGCCCTACGAGCACCTGACCGCAGAGTCTTTTCCTGACATCTCTCTG AACAACGAGAAGGTGCTGGTGGAGACCAGTTACCCCAGCCAAACCACTCGACTGCCCCCCATCACCTATACTGGC CGCTTTTCCCTGGAGCCTGCACCCAACAGTGGCAACACCTTGTGGCCCGAGCCCCTCTTCAGCTTGGTCAGTGGC CTAGTGAGCATGACCAACCCACCGGCCTCCTCGTCCTCAGCACCATCTCCAGCGGCCTCCTCCGCCTCC ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCCTTCCCGGGCTCGGCAGGGACAGCGCTCCAGTAC CCGCCTCCTGCCTGCCGCCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTTTCCACAGCAG CAGGGGGATCTGGGCCTGGGCACCCCAGACCAGAAGCCCTTCCAGGGCCTGGAGAGCCGCACCCAGCAGCCTTCG CTAACCCCTCTGTCTACTATTAAGGCCTTTGCCACTCAGTCGGGCTCCCAGGACCTGAAGGCCCTCAATACCAGC TACCAGTCCCAGCTCATCAAACCCAGCCGCATGCGCAAGTATCCCAACCGGCCCAGCAAGACGCCCCCCCACGAA CGCCCTTACGCTTGCCCAGTGGAGTCCTGTGATCGCCGCTTCTCCCGCTCCGACGAGCTCACCCGCCACATCCGC ATCCACACAGGCCAGAAGCCCTTCCAGTGCCGCATCTGCATGCGCAACTTCAGCCGCAGCGACCACCTCACCACC CACATCCGCACCCACACAGGCGAAAAGCCCTTCGCCTGCGACATCTGTGGAAGAAAGTTTGCCAGGAGCGATGAA CGCAAGAGGCATACCAAGATCCACTTGCGGCAGAAGGACAAGAAAGCAGACAAAAGTGTTGTGGCCTCTTCGGCC CCGGCCACCACCTCATACCCATCCCCTGTGCCCACCTCCTTCTCCTCTCCCGGCTCCTCGACCTACCCATCCCCT GTGCACAGTGGCTTCCCCTCCCGTCGGTGGCCACCACGTACTCCTCTGTTCCCCCTGCTTTCCCGGCCCAGGTC AGCAGCTTCCCTTCCTCAGCTGTCACCAACTCCTTCAGCGCCTCCACAGGGCTTTCGGACATGACAGCAACCTTT TCTCCCAGGACAATTGAAATTTGC<u>TAA</u>AGGGAAAGGGGAAAGAAGGGAAAAGGGAAAAAAGAAACACAAGAGA QTTAAAGGACAGGAGGAGGAGGCCATAGGAGGAGGGTTCCTCTTAGGTCAGATGGAGGTTCTCAGAGCCA A CTCCTCCCTCTCTACTGGAGTGGAAGGTCTATTGGCCAACAATCCTTTCTGCCCACTTCCCCTTCCCCAATTAC TÀTTCCCTTTGACTTCAGCTGCCTGAAACAGCCATGTCCAAGTTCTTCACCTCTATCCAAAGAACTTGATTTGCA TGGATTTTGGATAAATCATTTCAGTATCATCTCCATCATATGCCTGACCCCTTGCTCCCTTCAATGCTAGAAAAT  $\texttt{CGT} \\ \texttt{TTTTCTTGGGGTACTCTTGATGTGAAGATAATTTGCATATTCTATTGTATTATTTGGAGTTAGGTCCTCACT}$ TGGGGGAAAAAAAAAAAAAAGCCAAGCAAACCAATGGTGATCCTCTATTTTGTGATGATGCTGTGACAATAAG TTTGAACCTTTTTTTTTGAAACAGCAGTCCCAGTATTCTCAGAGCATGTGTCAGAGTGTTGTTCCGTTAACCTTT  $\verb|TITTTCTTCGTCCTTTTGGTTTAAAAAGTTTCACGTCTTGGTGCCCTTTGTGTGATGCCCCTTGCTGATGGCTT|\\$ GACATGTGCAATTGTGAGGGACATGCTCACCTCTAGCCTTAAGGGGGGCAGGGAGTGATTGGGGGAGGCTT TGGGAGCAAAATAAGGAAGAGGGCTGAGCTGAGCTTCGGTTCTCCAGAATGTAAGAAAACAAAATCTAAAACAAA ATCIGAACTCTCAAAAGTCTATTTTTTTAACTGAAAATGTAAATTTATAAATATATTCAGGAGTTGGAATGTTGT AGTTACCTACTGAGTAGGCGGCGATTTTTGTATGTTATGAACATGCAGTTCATTATTTTGTGGTTCTATTTTACT TTGTACTTGTGTTTGCTTAAACAAAGTGACTGTTTGGCTTATAAACACATTGAATGCGCTTTATTGCCCATGGGA TATGTGGTGTATATCCTTCCAAAAATTAAAACGAAAATAAAGTAGCTGCGATTGGG

MAAAKAEMQLMSPLQISDPFGSFPHSPTMDNYPKLEEMMLLSNGAPQFLGAAGAPEGSGSNSSSSSSGGGGGGGGGGGSNSSSSSSSTFNPQADTGEQPYEHLTAESFPDISLNNEKVLVETSYPSQTTRLPPITYTGRFSLEPAPNSGNTLW PEPLFSLVSGLVSMTNPPASSSSAPSPAASSASASQSPPLSCAVPSNDSSPIYSAAPTFPTPNTDIFPEPQSQAF PGSAGTALQYPPPAYPAAKGGFQVPMIPDYLFPQQQGDLGLGTPDQKPFQGLESRTQQPSLTPLSTIKAFATQSG SQDLKALNTSYQSQLIKPSRMRKYPNRPSKTPPHERPYACPVESCDRRFSRSDELTRHIRIHTGQKPFQCRICMR NFSRSDHLTTHIRIHTGEKPFACDICGRKFARSDERKRHTKIHLRQKDKKADKSVVASSATSSLSSYPSPVATSY PSPVTTSYPSPATTSYPSPVPTSFSSPGSSTYPSPVHSGFPSPSVATTYSSVPPAFPAQVSSFPSSAVTNSFSAS TGLSDMTATFSPRTIEIC

 ${\tt MARKAGNFYVPAEPKLAFVIRIRGINGVSPKPYKALPPGPRPIQGASFPARLAGGPRAGSPPGAQHALPEVFQRP}\\ {\tt QPGTSSHTGLRASPAALP}$ 

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCCATCATAAGTGCCAGCCGAGCTGCA AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG AAATTGTATTCTCCGAGTCAGATTGGAGCATTTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACTTTTGATATTTCTATCCTGGAAATTCAG AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA CGGCACATTGTGAAGGAGTTCAAGAGAGAGAGAGAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA  $\tt CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA$ ATGGATTCTTCTGGACCCAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTCAGCAGACTGTACAGGATCTTTTTGGCAGAGCCCCAAGT AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTGTTGGCCGGCGATGTCACG  ${\tt GATGTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAAACTTATT}$ AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGAA ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGTTTACTTTGATTGGAATT  ${\tt CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT}$ GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGGTGC AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT AGACAGGCAGCATCCTCTCTCAGCAGGCATCATTGAAGCTGTTCGAAATGGCATACAAAAAGATGGCATCTGAG  $\tt CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAG\underline{TAA}{T}AATAGCAG$ AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATATTTCCTTAATTTGTAAATTTAGTGACCATTAGCTAGT GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCATTTTTCAGC TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAAACTTAGCTATTTATATTA GGTACAGCTATTAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAA

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSAKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFEMAYKKMASEREGSGSSGTGEQKEDQK

# FIGURE 1695

GAAATGACTGCTGTCCATGCAGGCAACATAAACTTCAAGTGGGATCCTAAAAGTCTAGAGATCAGGACTCTGGCA GTTGAGAGACTGTTGGAGCCTCTTGTTACACAGGTTACAACCCTTGTAAACACCAATAGTAAAGGGCCCTCTAAT AAGAAGAGGGCCGTTCTAAGAAGGCCCATGTTTTGGCTGCATCTGTTGAACAAGCAACTGAGAATTTCTTGGAG AAGGGGGATAAAATTGCGAAGGAGGCCAGTTTCTCAAGGAGGAGCTTGTGGCTGCTGTAGAAGATGTTCGAAAA CAAGGTGATTTGATGAAGGCTGCTGCAGGAGAGTTCGCAGATGATCCCTGCTCTTCTGTGAAGCGAGGCAACATG GTTCGGGCAGCTCGAGCTTTGCTCTCTGCTGTTACCCGGTTGCTGATTTTGGCTGACATGGCAGATGTCTACAAA TTACTTGTTCAGCTGAAAGTTGTGGAAGATGGTATCTTGAAGTTGAGGAATGCTGGCAATGAACAAGACTTAGGA ATCCAGTATAAAGCCCTAAAACCTGAAGTGGATAAGCTGAACATTATGGCAGCCAAAAGACAACAGGAATTGAAA GATGTTGGCCATCGTGATCAGATGGCTGCAGCTAGAGGAATCCTGCAGAAGAACGTTCCGATCCTCTATACTGCA TCCCAGGCATGCCTACAGCACCCTGATGTCGCAGCCTATAAGGCCAACAGGGACCTGATATACAAGCAGCTGCAG CAGGCGGTCACAGGCATTTCCAATGCAGCCCAGGCCACTGCCTCAGACGATGCCTCACAGCACCAGGGTGGAGGA  $\tt CGCTTTAGGCCTTCCCTGGAGGGGCGTCTGGAAAGCATCATTAGTGGGGGCTGCCTTGATGGCCGACTCGTCCTGC$ ACGCGTGATGACCGTCGTGAGCGAATTGTGGCAGAGTGTAATGCTGTCCGCCAGGCCCTGCAGGACCTGCTTTCG GAGTACATGGGCAATGCTGGACGTAAAGAAAGAAGTGATGCACTCAATTCTGCAATAGATAAAATGACCAAGAAG ACCAGGGACTTGCGTAGACAGCTCCGCAAAGCTGTCATGGACCACGTTTCAGATTCTTTCCTGGAAACCAATGTT  ${\tt CCACTTTTGGTATTGAAGCTGCAAAGAATGGAAATGAGAAGAAGTTAAGGAGTATGCCCAAGTTTTCCGT}$ GAACATGCCAACAAATTGATTGAGGTTGCCAACTTGGCCTGTTCCATCTCAAATAATGAAGAAGGTGTAAAGCTT GTTCGAATGTCTGCAAGCCAGTTAGAAGCCCTCTGTCCTCAGGTTATTAATGCTGCACTGGCTTTAGCAGCAAAA CCACAGAGTAAACTGGCCCAAGAGAACATGGATCTTTTTAAAGAACAATGGGAAAAACAAGTCCGTGTTCTCACA GATGCTGTCGATGACATTACTTCCATTGATGACTTCTTGGCTGTCTCAGAGAATCACATTTTGGAAGATGTGAAC AAATGTGTCATTGCTCTCCAAGAGAAGGATGTGGATGGCCTGGACCGCACAGCTGGTGCAATTCGAGGCCGGGCA GCCCGGGTCATTCACGTAGTCACCTCAGAGATGGACAACTATGAGCCAGGAGTCTACACAGAGAAGGTTCTGGAA GCCACTAAGCTGCTCTCCAACACAGTCATGCCACGTTTTACTGAGCAAGTAGAAGCAGCCGTGGAAGCCCTCAGC ATCAGGAAAGCAGTGCTGATGATAAGGACCCCTGAGGAGTTGGATGACTCTGACTTTGAGACAGAAGATTTTGAT GTCAGAAGCAGGACGACGTCCAGACAGAAGACGATCAGCTGATAGCTGGCCAGAGTGCCCGGGCGATCATGGCT CAGCTTCCCCAGGAGCAAAAAGCGAAGATTGCGGAACAGGTGGCCAGCTTCCAGGAAGAAAAGAGCCAAGCTGGAT GCTGAAGTGTCCAAATGGGACGACAGTGGCAATGACATCATTGTGCTGGCCAAGCAGATGTGCATGATTATGATG GAGATGACAGACTTTACCCGAGGTAAAGGACCACTCAAAAATACATCGGATGTCATCAGTGCTGCCAAGAAAATT GCTGAGGCAGGATCCAGGATGGACAAGCTTGGCCGCACCATTGCAGACCATTGCCCCGACTCGGCTTGCAAGCAG GACCTGCTGCCTACCTGCAACGCATCGCCCTCTACTGCCACCAGCTGAACATCTGCAGCAAGGTCAAGGCCGAG GTGCAGAATCTCGGCGGGGAGCTTGTTGTCTCTGGGGTGGACAGCCCATGTCCCTGATCCAGGCAGCCAAGAAC TTGATGAATGCTGTGGTGCAGACAGTGAAGGCATCCTACGTCGCCTCTACCAAATACCAAAAGTCACAGGGTATG CAGGATGAGACACAGACTAAACGGGCATCTCAGAAGAAGCACGTGAACCCGGTGCAGGCCCTCAGCGAG CTGTTCGTCACTCAAATGAATTTGCTAAATACAACACTGATACTAGATTCCACAGGGAAATGGGCAGACTGAACC AGTCCAGGTGGTGAATTTTCCAAGAACATAGTTTAAGTTGATTAAAAATGCTTTTAGAATGCAGGAGCCTACTTC TAGCTGTATTTTTTGTATGCTTAAATAAAAATAAAAATTCATAACCAAAGAGAATCCCACATTAGCTTGTTAGTA AACTTCAGTTGAGAGGGTGCAGTCCAGACAGCTTGACTGCTTTTAAATGACCAAAGATGACCTGTGGTAAGCAAC AAAACATAATGTATCATGAAGAAAACTGATTCTCTATGACATGAAATGAAAATTTTAATGCATTGTTATAATTAC TAATGTACGCTGCTGCAGGACATTAATAAAGTTGCTTTTTTAGGCTACAGTGTCTCGATGCCATAATCAGAACAC ACTITITITCCTCTTTCTCCCAGCTTCAAATGCAAATTCATCATTGGGCTCACTTCTAATAACTGCAGTGTTTCC CGCCTTGGGCTTGCAG

# FIGURE 1696

MTAVHAGNINFKWDPKSLEIRTLAVERLLEPLVTQVTTLVNTNSKGPSNKKRGRSKKAHVLAASVEQATENFLEK
GDKIAKESQFLKEELVAAVEDVRKQGDLMKAAAGEFADDPCSSVKRGNMVRAARALLSAVTRLIILADMADVYKL
LVQLKVVEDGILKLRNAGNEQDLGIQYKALKPEVDKLNIMAAKRQQELKDVGHRDQMAAARGILQKNVPILYTAS
QACLQHPDVAAYKANRDLIYKQLQQAVTGISNAAQATASDDASQHQGGGGGELAYALNNFDKQIIVDPLSFSEER
FRPSLEERLESIISGAALMADSSCTRDDRRERIVAECNAVRQALQDLLSEYMGNAGRKERSDALNSAIDKMTKKT
RDLRRQLRKAVMDHVSDSFLETNVPLLVLIEAAKNGNEKEVKEYAQVFREHANKLIEVANLACSISNNEEGVKLV
RMSASQLEALCPQVINAALALAAKPQSKLAQENMDLFKEQWEKQVRVLTDAVDDITSIDDFLAVSENHILEDVNK
CVIALQEKDVDGLDRTAGAIRGRAARVIHVVTSEMDNYEPGVYTEKVLEATKLLSNTVMPRFTEQVEAAVEALSS
DPAQPMDENEFIDASRLVYDGIRDIRKAVLMIRTPEELDDSDFETEDFDVRSRTSVQTEDDQLIAGQSARAIMAQ
LPQEQKAKIAEQVASFQEEKSKLDAEVSKWDDSGNDIIVLAKQMCMIMMEMTDFTRGKGPLKNTSDVISAAKKIA
EAGSRMDKLGRTIADHCPDSACKQDLLAYLQRIALYCHQLNICSKVKAEVQNLGGELVVSGVDSAMSLIQAAKNL
MNAVVQTVKASYVASTKYQKSQGMASLNLPAVSWKMKAPEKKPLVKREKQDETQTKIKRASQKKHVNPVQALSEF
KAMDSI

GAATTCGGGCGGGGTTTGTACTATCCTCGGTGCTGTGGTGCAGAGCTAGTTCCTCCAGCTCAGCCGCGTAGGT  ${\tt TTGGACATATTTACTCTTTTCCCCCCAGGTTGAATTGACCAAAGCA{\tt ATG}{\tt GTGATGGAGAAGCCTAGTCCCCTGCT}}$ GGTCGGGCGGGAATTTGTGAGACAGTATTACACACTGCTGAACCAGGCCCCAGACATGCTGCATAGATTTTATGG AAAGAACTCTTCTTATGTCCATGGGGGATTGGATTCAAATGGAAAGCCAGCAGATGCAGTCTACGGACAGAAAGA AATCCACAGGAAAGTGATGTCACAAAACTTCACCAACTGCCACCCAAGATTCGCCATGTTGATGCTCATGCCAC GCTAAATGATGGTGTGGTAGTCCAGGTGATGGGGCTTCTCTCTAACAACAACCAGGCTTTGAGGAGATTCATGCA GCAAACACCTGAGGTGGTACCTGATGATTCTGGAACTTTCTATGATCAGGCAGTTGTCAGTAATGACATGGAAGA ACATTTAGAGGAGCCTGTTGCTGAACCAGAGCCTGATCCTGAACCAGAACCAGAACAAGAACCTGTATCTGAAAT CCAAGAGGAAAAGCCTGAGCCAGTATTAGAAGAAACTGCCCCTGAGGATGCTCAGAAGAGTTCTTCTCCAGCACC TGCAGACATAGCTCAGACAGTACAGGAAGACTTGAGGACATTTTCTTGGGCATCTGTGACCAGTAAGAATCTTCC ACCCAGTGGAGCTGTTCCAGTTACTGGGATACCACCTCATGTTGTTAAAGTACCAGCTTCACAGCCCCGTCCAGA TCCTCCCCAAAGGGGACCCAGACCAATCCGTGAGGCTGGTGAGCAAGGTGACATTGAACCCCGAAGAATGGTGAG ACACCCTGACAGTCACCAACTCTTCATTGGCAACCTGCCTCATGAAGTGGACAAATCAGAGCTTAAAGATTTCTT TCAAAGTTATGGAAACGTGGTGGAGTTGCGCATTAACAGTGGTGGGAAATTACCCAATTTTGGTTTTGTTGTTT TGATGATTCTGAGCCTGTTCAGAAAGTCCTTAGCAACAGGCCCATCATGTTCAGAGGTGAGGTCCGTCTGAATGT AGGTGGGCTGGGTGGAATGAGAGGCCCTCCCCGTGGAGGCATGGTGCAGAAACCAGGATTTGGAGTGGGAAG  ${\tt GGGGCTTGCGCCACGGCAG} \underline{{\tt TAA}}{\tt TCTTCATGGATCTTCATGCAGCCATACAAACCCTGGTTCCAACAGAATGGTGA}$ ATTTTCGACAGCCTTTGGTATCTTGGAGTATGACCCCAGTCTGTTATAAACTGCTTAAGTTTGTATAATTTTACT TTTTTTGTGTGTTAATGGTGTGCTCCCTCTCCCTCTCTCCTTTCCTTACCTTAGTCTTTCACTTCCAATT TTGTGGAATGATATTTTAGGAATAACGGACTTTTACCCGAATTC

MVMEKPSPLLVGREFVRQYYTLLNQAPDMLHRFYGKNSSYVHGGLDSNGKPADAVYGQKEIHRKVMSQNFTNCHT KIRHVDAHATLNDGVVVQVMGLLSNNNQALRRFMQTFVLAPEGSVANKFYVHNDIFRYQDEVFGGFVTEPQEESE EEVEEPEERQQTPEVVPDDSGTFYDQAVVSNDMEEHLEEPVAEPEPDPEPEPEQEPVSEIQEEKPEPVLEETAPE DAQKSSSPAPADIAQTVQEDLRTFSWASVTSKNLPPSGAVPVTGIPPHVVKVPASQPRPESKPESQIPPQRPQRD QRVREQRINIPPQRGPRPIREAGEQGDIEPRRMVRHPDSHQLFIGNLPHEVDKSELKDFFQSYGNVVELRINSGG KLPNFGFVVFDDSEPVQKVLSNRPIMFRGEVRLNVEEKKTRAAREGDRRDNRLRGPGGPRGGLGGGMRGPPRGGM VQKPGFGVGRGLAPRQ

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# FIGURE 1700

GGAGAGCGCGCTCTGCCTGCCTGCCTGCCACTGAGGGTTCCCAGCACCATGAGGGCCTGGATCTTCTT AGAAACTGTGGCAGAGGTGACTGAGGTATCTGTGGGAGCTAATCCTGTCCAGGTGGAAGTAGGAGAATTTGATGA TGGTGCAGAGGAAACCGAAGAGGAGGTGGTGGCGGAAAATCCCTGCCAGAACCACCACTGCAAACACGGCAAGGT GTGCGAGCTGGATGAGAACAACACCCCCATGTGCGTGTGCCAGGACCCCACCAGCTGCCCAGCCCCCATTGGCGA GTTTGAGAAGGTGTGCAGCAATGACAACAAGACCTTCGACTCTTCCTGCCACTTCTTTGCCACAAAGTGCACCCT GGAGGGCACCAAGAAGGGCCACAAGCTCCACCTGGACTACATCGGGCCTTGCAAATACATCCCCCCTTGCCTGGA CTCTGAGCTGACCGAATTCCCCCTGCGCATGCGGGACTGGCTCAAGAACGTCCTGGTCACCCTGTATGAGAGGGA TGAGGACAACATCTTCTGACTGAGAAGCAGAAGCTGCGGGTGAAGAAGATCCATGAGAATGAGAAGCCCCTGGA GGCAGGAGACCACCCCGTGGAGCTGCTGGCCCGGGACTTCGAGAAGAACTATAACATGTACATCTTCCCTGTACA  $\tt CTGGCAGTTCGGCCAGCTGGACCACCCCATTGACGGGTACCTCTCCCACACCGAGCTGGCTCCACTGCGTGC$ TCCCCTCATCCCCATGGAGCATTGCACCACCCGCTTTTTCGAGACCTGTGACCTGGACAATGACAAGTACATCGC CCTGGATGAGTGGGCCGGCTGCTTCGGCATCAAGCAGAAGGATATCGACAAGGATCTTGTGATCTAAATCCACTC CTTCCACAGTACCGGATTCTCTTTTAACCCTCCCCTTCGTGTTTCCCCCAATGTTTAAAATGTTTGGATGGTTT GTTGTTCTGCCTGGAGACAAGGTGCTAACATAGATTTAAGTGAATACATTAACGGTGCTAAAAATGAAAATTCTA ACCCAAGACATGACATTCTTAGCTGTAACTTAACTATTAAGGCCTTTTCCACACGCATTAATAGTCCCATTTTTC TCTTGCCATTTGTAGCTTTGCCCATTGTCTTATTGGCACATGGGTGGACACGGATCTGCTGGGCTCTGCCTTAAA CACACATTGCAGCTTCAACTTTTCTCTTTAGTGTTCTGTTTGAAACTAATACTTACCGAGTCAGACTTTGTGTTC ATTTCATTTCAGGGTCTTGGCTGCCTGTGGGCTTCCCCAGGTGGCCTGGAGGTGGGCAAAGGGAAGTAACAGACA AACGTGGTTTGCCTGAGGCTGTAACTGAGAGAAAGATTCTGGGGGCTGTGTTATGAAAATATAGACATTCTCACAT AAGCCCAGTTCATCACCATTTCCTCCTTTACCTTTCAGTGCAGTTTCTTTTCACATTAGGCTGTTGGTTCAAACT TTTGGGAGCACGGACTGTCAGTTCTCTGGGAAGTGGTCAGCGCATCCTGCAGGGCTTCTCCTCCTCTGTCTTTTG GAGAACCAGGGCTCTTCTCAGGGGCTCTAGGGACTGCCAGGCTGTTTCAGCCAGGAAGGCCAAAATCAAGAGTGA GATGTAGAAAGTTGTAAAATAGAAAAAGTGGAGTTGGTGAATCGGTTGTTCTTTCCTCACATTTGGATGAITGTC ATAAGGTTTTTAGCATGTTCCTCCTTTTCTCACCCTCCCCTTTTTTCTTCTATTAATCAAGAGAAACTTCAAAG TTAATGGGATGGTCGGATCTCACAGGCTGAGAACTCGTTCACCTCCAAGCATTTCATGAAAAAGCTGCTTCTTAT TAATCATACAAACTCTCACCATGATGTGAAGAGTTTCACAAATCCTTCAAAATAAAAAGTAATGACTTAGAAACT

TTCCCAGGCTTTGACCCCAACCAGGATGCCGAGGCTCTGTACACTGCCATGAAGGGCTTTGGCAGTGACAAGGAG GCCATACTGGACATAATCACCTCACGGAGCAACAGGCAGAGGCAGGAGGTCTGCCAGAGCTACAAGTCCCTCTAC GGCAAGGACCTCATTGCTGATTTAAAGTATGAATTGACGGGCAAGTTTGAACGGTTGATTGTGGGCCTGATGAGG CCACCTGCCTATTGTGATGCCAAAGAATTAAAGATGCCATCTCGGGCATTGGCACTGATGAGAAGTGCCTCATT GAGATCTTGGCTTCCCGGACCAATGAGCAGATGCACCAGCTGGTGGCAGCATACAAAGATGCCTACGAGCGGGAC CTGGAGGCTGACATCATCGGCGACACCTCTGGCCACTTCCAGAAGATGCTTGTGGTCCTGCTCCAGGGAACCAGG GAGGAGGATGACGTAGTGAGCGAGGACCTGGTACAACAGGATGTCCAGGACCTATACGAGGCAGGGGAACTGAAA GAGTATCTGAAGACCACAGGGAAGCCGATTGAAGCCAGCATCCGAGGGGGAGCTGTCTGGGGGACTTTGAGAAGCTA ATGCTGGCCGTAGTGAAGTGTATCCGGAGCACCCCGGAATATTTTGCTGAAAGGCTCTTCAAGGCTATGAAGGGC CTGGGGACTCGGGACACCCTGATCCGCATCATGGTCTCCCGTAGTGAGTTGGACATGCTCGACATTCGGGAG ATCTTCCGGACCAGTATGAGAAGTCCCTCTACAGCATGATCAAGAATGACACCTCTGGCGAGTACAAGAAGACT CTGCTGAAGCTGTCTGGGGGAGATGATGATGCTGCTGGCCAGTTCTTCCCGGAGGCAGCGCAGGTGGCCTATCAG ATGTGGGAACTTAGTGCAGTGGCCCGAGTAGAGCTGAAGGGAACTGTGCGCCCAGCCAATGACTTCAACCCTGAC GCAGATGCCAAAGCGCTGCGGAAAGCCATGAAGGGACTCGGGACTGACGAAGACACAATCATCGATATCATCACC CTGAAGTCTGAGATCTCTGGAGACCTGGCAAGGCTGATTCTGGGGCTCATGATGCCACCGGCCCATTACGATGCC AAGCAGTTGAAGAAGGCCATGGAGGGAGCCGGCACAGATGAAAAGGCTCTTATTGAAATCCTGGCCACTCGGACC AATGCTGAAATCCGGGCCATCAATGAGGCCTATAAGGAGGACTATCACAAGTCCCTGGAGGATGCTCTGAGCTCA GACACATCTGGCCACTTCAGGAGGATCCTCATTTCTCTGGCCACGGGGCATCGTGAGGAGGAGGAGAAAACCTG GACCAGGCACGGGAAGATGCCCAGGTGGCTGCTGAGATCTTGGAAATAGCAGACACCCTAGTGGAGACAAAACT TCCTTGGAGACACGTTTCATGACGATCCTGTGTACCCGGAGCTATCCGCACCTCCGGAGAGTCTTCCAGGAGTTC ATCAAGATGACCAACTATGACGTGGAGCACCATCAAGAAGGAGATGTCTGGGGATGTCAGGGATGCATTTGTG GCCATTGTTCAAAGTGTCAAGAACAAGCCTCTCTTCTTTGCCGACAAACTTTACAAATCCATGAAGGGTGCTGGC ACAGATGAGAAGACTCTGACCAGGATCATGGTATCCCGCAGTGAGATTGACCTGCTCAACATCCGGAGGGAATTC ATTGAGAAATATGACAAGTCTCTCCACCAAGCCATTGAGGGTGACACCTCCGGAGACTTCCTGAAGGCCTTGCTG GCTCTCTGTGGTGGTGAGGACTAGGGCCACAGCTTTGGCGGGCACTTCTGCCAAGAAATGGTTATCAGCACCAGC GCTCTTATCTTCAGTGGAGCTTAGGAAACGCTCCCACTCCCACGGGCCATCGAGGGCCCAGCACGGCTGAGCGGC TGAAAAACCGTAGCCATAGATCCTGTCCACCTCCACTCCCCTCTGACCCTCAGGCTTTCCCAGCTTCCTCCCCTT 

GTCGACCCACGCGTCCGTGCCAGTCTCCGGGGACTTTCCCAGGGGTGGGGCGCGTGTCCGGGCCCCCGGCACTT CCTCGTCCTCGGCCCGGGTGCCCTGCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCCG GGCCGCTGCCCGTCCCTGGATTCGGGGCTGGACGCAGCAAGCGGGGCGCTGTGTCCCCAAGCTCCCCGTCCTCG CAGCGGGCACAGGCAGGGGCTGAGCTACCCTCATCGAAGGGAGGACCGTACCGGATCTACGACCCTGGGGGCCA GCGTGCCCTCAGGAGAGGCATCCGCAGCTTTTGAGCGCCTAGTGAAGGAGAATTCCCGGCTGAAGGAAAAAATGC AAGGGATAAAGATGTTAGGGGAGCTTTTGGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAAGGCAGAGG CAGGAAAGGACTCAAATGTCACAGCATCTCCCACAGCCCCTGCATGCCCCAGTGACAAGCCAGCACCAGTCCAGA AGCCTCCATCCAGTGGCACCTCCTCTGAATTTGAAGTGGTCACTCCTGAGGAGCAGAATTCACCAGAGAGCAGCA GCCATGCCAATGCGATGGCGCTGGGCCCCTGCCCCGTGAGGACGGCAACCTGATGCTGCACCTGCAGCGCCTGG AGTTCAACCGACTGGCATCCAAGGTGCACAAGAATGAGCAGCGCACCTCCATTCTGCAGACCCTGTGTGAGCAGC TTCGGAAGGAGAACGAGGCTCTGAAGGCCAAGTTGGATAAGGGCCTGGAACAGCGGGATCAGGCTGCCGAGAGGC TGCGGGAGGAAAATTTGGAGCTCAAGAAGTTGTTGATGAGCAATGGCAACAAAGAGGGTGCGTCTGGGCGGCCAG GCTCACCGAAGATGGAAGGGACAGGCAAGAAGGCAGTGGCTGGACAGCAGGCTAGTGTGACGGCAGGTAAGG TCCCAGAGGTGGTGGCCTTGGGCGCACCCGAGAAGAAGGTGAAGATGCTGGAGCAGCAGCGCAGTGAGCTGCTGG AAGTGAACAAGCAGTGGGACCAGCATTTCCGGTCCATGAAGCAGCAGTATGAGCAGAAGATCACTGAGCTGCGTC AGAAGCTGGCTGATTTGCAGAAGCAGGTGACTGACCTGGAGGCCGAGCGGGAGCAGAAGCAGCGTGACTTTGACC GCAAGCTCCTCCTGGCCAAGTCCAAGATTGAAATGGAGGAGACCGACAAGGAGCAGCTGACAGGAGGCCAAAGG AGCTGCGCCAAAAGGTCAAGTACCTGCAGGATCAGCTGAGCCCACTCACCCGACAGCGTGAGTACCAGGAAAAGG AGATCCAGCGGCTCAACAAGGCCCTGGAGGAAGCACTGAGCATCCAAACCCCGCCATCATCTCCCACCAACAGCAT TTGGGAGCCCAGAAGGAGCAGGGCCCTCCTAAGGAAACAGGAGCTGGTCACGCAGAATGAGTTGCTGAAACAGC TGAAGAAGCAAGTGGAGAAGCTGCAGGCCCAGGTCACCCTGTCAAATGCCCAGCTAAAAGCATTCAAAGATGAGG AGAAGGCAAGAGAAGCCCTCAGACAGCAGAAGAGGAAAGCAAAGGCCTCAGGAGAGCGTTACCATGTGGAGCCCC AGGACTGGTCCCAGATCCGCTACCCCCTCCCCCATGGCCATGGAGCACCCGCCCCCACTCCCCAACTCGCGCC TCTTCCATCTGCCGGAATACACCTGGCGTCTACCCTGTGGAGGGGTTCGAAATCCAAATCAGAGCTCCCAAGTGA TGGACCCTCCCACAGCCAGGCCTACAGAACCAGAGTCTCCAAAAAATGACCGTGAGGGGCCTCAG<u>TGA</u>GACCAGA TTGTGTCATTTGGCTCCACCTTCATCTTGCAGAGCCAGCTGATCTCAATTGCCAAAAACTAGAAGCCACTTGCAC GGTGTGGCCAGAGCCTCAGCTGGATGAGAGGCTGAGATGGGTGGCCAGCTTGTACACCAGTCCCTGAACTGAGCT GTTTACAGGACTGGGGAGGCTCCACCCAGAAGGCTTTCATTTGTACTCTGCTGGGAGTGACTGGGAAAAACTCCT TCCCTGCTGCTGAGTGGAGAGGGCCTCATCCGGCTTTGACCCCCATCCTTGCAGAAGCCTCCAGGAGCAGCAAT CCTAAGAGTGGGAGGCAGCCAAGACCCCCTTCCTTCAAAACCTCCCGGAAGTGGTTTCAGGCCCTCTAGTTGCCA TGACCAATTTGTGTGTGTTTTAATTTTTGCTTCAAGCTCTGTAGCAGGACCTGCCCCACGCACACCCCTACCCC TCTGTGAGGAGCTGTGGGAAGTGTGGGTTTGTCTCCAGAACAGAAGAGAATGATGGATATTCTGGCTCTGGGGCC AGGGGCGCCAGCCTGAAGCTGCCAGGCCCTGAGGTTCAGACCCTGGACCCCATAGCTGGAGGCCTGTGGTGCCAG AAGCCCAGATTAGGGTGGCTGTCCATCCCTGGATAGCTATTTGCACGAATCATGGACATAAATCCAAGTTG

MEGRGPYRIYDPGGSVPSGEASAAFERLVKENSRLKEKMQGIKMLGELLEESQMEATRLRQKAEELVKDNELLPP
PSPSLGSFDPLAELTGKDSNVTASPTAPACPSDKPAPVQKPPSSGTSSEFEVVTPEEQNSPESSSHANAMALGPL
PREDGNLMLHLQRLETTLSVCAEEPDHGQLFTHLGRMALEFNRLASKVHKNEQRTSILQTLCEQLRKENEALKAK
LDKGLEQRDQAAERLREENLELKKLLMSNGNKEGASGRPGSPKMEGTGKKAVAGQQQASVTAGKVPEVVALGAPE
KKVKMLEQQRSELLEVNKQWDQHFRSMKQQYEQKITELRQKLADLQKQVTDLEAEREQKQRDFDRKLLLAKSKIE
MEETDKEQLTAEAKELRQKVKYLQDQLSPLTRQREYQEKEIQRLNKALEEALSIQTPPSSPPTAFGSPEGAGALL
RKQELVTQNELLKQQVKIFEEDFQRERSDRERMNEEKEELKKQVEKLQAQVTLSNAQLKAFKDEEKAREALRQQK
RKAKASGERYHVEPHPEHLCGAYPYAYPPMPAMVPHHGFEDWSQIRYPPPPMAMEHPPPLPNSRLFHLPEYTWRL
PCGGVRNPNQSSQVMDPPTARPTEPESPKNDREGPQ

AGCCAAAAGAGGAAGGGACCGGCCTCCCACGTCCACAGGGACCTGACTTCCACCTCTCTGCCCAGATTTGCTTAT GTCACTGTCGCCCCGGGACGGGGAGGTGGGGAGCTGAGGCCAAGTCGCGCCCCCCCGCAAATCCCAGCCGCCTA GCGATTGGCTGCAAGGGTCTCGGCTTGGCCGCGGATTAATCACACCCGAGGGCTTGAAAGGTGGCTGGGAGCGCC GGACACCTCAGACGGACGGTGGCCAGGGATCAGGCAGCGGCTCAGGCGACCCTGAGTGTGCCCCCACCCCGCCAT GCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCGCCGGCTTCGTCTCGCAGAGCCGGGGACAAGA GAAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCACCATTTACGAGTACGGAGCCCTCACCATTGATGGGGA GGAGTACATCCCCTTCAAGCAGTATGCTGGCAAATACGTCCTCTTTGTCAACGTGGCCAGCTACTGAGGCCTGAC GGGCCAGTACATTGAACTGAATGCACTACAGGAAGAGCTTGCACCATTCGGTCTGGTCATTCTGGGCTTTCCCTG AGGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAGGGGATGTCAATGGAGAAAAGAGCAGAAATTCTACACTTT CCTAAAGAACTCCTGTCCTCCCACCTCGGAGCTCCTGGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGT TCACGACATCCGCTGGAACTTTGAGAAGTTCCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCACCACCG ACCACACTATCTACCCATCACAGACCCCTTTCCTATCACTCAAGGCCCCAGCCTGGCACAAATGGATGCATACAG  $\tt TTCTGTGTACTGCCAGGCATGTGGGTGTGGGTGCAATGTGGGTGTTTACACACATGCCTACAGGTATGCGTGATT$ GTGTGTGTGTGCATGGGTGTACAGCCACGTGTCTACCTATGTGTCTTTCTGGGAATGTGTACCATCTGTGTGCCT GCAGCTGTGTAGTGCTGGACAGTGACAACCCTTTCTCCCAGTTCTCCACTCCAATGATAATAGTTCACTTATAC CTAAACCCAAAGGAAAAACCAGCTCTAGGTCCAATTGTTCTGCTCTAACTGATACCTCAACCTTGGGGCCAGCAT CTCCCACTGCCTCCAAATATTAGTAACTATGACTGCCGTCCCCAGAAGTTTCTGGGTCTACCACACTCCCCAACC TCCCTGAGATCAACCAAGGCAGATGTGACAGCAAGGGCCACGGACCCCATGGCAGGGGTGGCGTCTTCATGAGGG AGGGGCCCAAAGCCCTTGTGGGCGGACCTCCCCTGAGCCTGTCTGAGGGGCCAGCCCTTAGTGCATTCAGGCTAA GGCCCCTGGGCAGGGATGCCACCCCTGCTCCTTCGGAGGACGTGCCCTCACCCCTCACTGGTCCACTGGCTTGAG 

MARLLQASCLLSLLLAGFVSQSRGQEKSKMDCHGGISGTIYEYGALTIDGEEYIPFKQYAGKYVLFVNVASYEGL TGQYIELNALQEELAPFGLVILGFPCNQFGKQEPGENSEILPTLKYVRPGGGFVPNFQLFEKGDVNGEKEQKFYT FLKNSCPPTSELLGTSDRLFWEPMKVHDIRWNFEKFLVGPDGIPIMRWHHRTTVSNVKMDILSYMRRQAALGVKR K

AGCCTCGGGGCTTGACGGGATTGTGGCGGTCCTCTCTCCCAATTCGGAAGCTACAGCTACCTCCGGACGCTCTCA  ${\tt AGATGGCGACCTCTCTGGGTTCCAACACCTACAACAGGCAGAACTGGGAGGATGCGGACTTCCCCATTCTGTGCC}$ GGCCATTCACAGTGTTTCGCTGGTGCCCTGGAGTCCGCATGCGTTTCAAGAAGACTGAAGTGTGCCAAACCTGCA GTAAATTGAAGAATGTCTGTCAGACCTGCCTCTTAGACCTAGAGTATGGCCTGCCCATCCAGGTTCGTGACGCAG TTTCTAACTCTGATGGAACACGGCCAGTTGGCATGCTGGGGAAAGCCACATCTACCAGTGACATGCTGCTCAAAC TGGCCCGGACCACACCCTACTACAAAAGGAATCGACCCCACATTTGCTCCTTCTGGGTGAAAGGAGAGTGTAAGA GAGGAGAGGAATGTCCATACAGACATGAGAAGCCTACAGATCCAGATGACCCCCTTGCTGATCAGAATATTAAAG ACCGTTATTACGGAATCAATGATCCTGTAGCTGACAAGCTTCTAAAGCGGGCTTCAACAATGCCTCGGCTGGACC CACCAGAGGATAAAACTATCACCACACTATATGTTGGTGGTCTAGGTGATACCATTACTGAGACAGATTTAAGAA ATCATTTCTACCAGTTCGGAGAGATCCGGACGATCACTGTTGTGCAGAGACAGCAGTGTGCTTTCATCCAGTTTG CCACACGGCAGGCTGCAGAAGTGGCTGCTGAGAAGTCCTTTAATAAGTTGATTGTAAATGGCCGCAGACTGAATG TGAAATGGGGAAGATCCCAGGCAGCCAGAGGAAAAGAAAAAGAGAAAGATGGAACTACAGACTCTGGGATCAAAC TAGAACCTGTTCCAGGATTGCCAGGAGCTCTTCCTCCTCCTCCTGCAGCAGAAGAAGAAGCCTCTGCCAACTACT CACCCCCAGGTTTTGGGCCACACATGTTCCACCCAATGGGACCACCCCCTCCTTTCATGCGGGCTCCAGGACCAA  ${\tt TCCACTATCCTTCTCAGGACCCTCAGAGGATGGGAGCTCATGCTGGAAAACACAGCAGCCCC\underline{TAG}{\tt CACCTTGTCA}}$  $\tt CTTGTAGTTTCCATGGTAGCTGAATGTGCTCAGATGTGAGCAGTCAGAGACTGACAGCCATGCTTTCCTATACTT$ GTTCAAAGGATCGATGGACCGTAAATAAGCTGCCATTAACACATCTGGTTACTGCTGTAACATGACTAATAAAAC  $\tt CGAACGCCTGTTCCCCTTACCCGTGTGGGGGACACGCAGATGAGTGAATTGGAATGTCCAGCAGAGTTACCCTCC$ CAATTATATGTTCATTTTGTATATTTTTTTGGTCGGGGGAAAAATTGACCTGCAGTAAAAAAACCTTTGACCATTT TTATGTCCATTGGATACTTTCCTTTTTATCATCTTAAAAAAAGATAACTAGTACTAATCATTGTAGTGGCCTAAG TGTGATTTAACTCTTGAAGTCACACCCTCCGAAAGATGAGTAGAAACCAGCACCAGCACAGCCCAGATCTTCTCT ATAAAAATTCCTTTTTATTCCTGTCAACTGGATGGAAACACAAATTTCATGGAGCTGTGTACCATCGAAGAAAACC TGGTGTCTGGCATGAAATTACTGTAAAGAACTTCCTGTAAAAACACGTTCTTTAACAAACTGAAATGAAAAGCATT GGAGCGTCTGAATGAAAGACGTGACCTCCTGCTGGGACTCTGATGGTCTTCAGCATTCACCTTCGTGTGTCTTCA GTGTCTCATTGTCATCCCTGCTTCTGTTTGGTCTTAGAGTGTTTTGGATATAACTGAATTGTAGATGGTAAAGGAA ATTTGATGTGTTTTTTGTTTTTAAATAATTAAAACGGGTCAATTTTT

MATSLGSNTYNRQNWEDADFPILCQTCLGENPYIRMTKEKYGKECKICARPFTVFRWCPGVRMRFKKTEVCQTCS
KLKNVCQTCLLDLEYGLPIQVRDAGLSFKDDMPKSDVNKEYYTQNMEREISNSDGTRPVGMLGKATSTSDMLLKL
ARTTPYYKRNRPHICSFWVKGECKRGEECPYRHEKPTDPDDPLADQNIKDRYYGINDPVADKLLKRASTMPRLDP
PEDKTITTLYVGGLGDTITETDLRNHFYQFGEIRTITVVQRQQCAFIQFATRQAAEVAAEKSFNKLIVNGRRLNV
KWGRSQAARGKEKEKDGTTDSGIKLEPVPGLPGALPPPPAAEEEASANYFNLPPSGPPAVVNIALPPPPGIAPPP
PPGFGPHMFHPMGPPPPFMRAPGPIHYPSQDPQRMGAHAGKHSSP

 ${\tt MAPRKGKEKKEEQVISLGPQVAEGENVFGVCHIFASFNDTFVHVTDLSGKETICRVTGGMKVKADRDESSPYAAM} \\ {\tt LAAQDVAQRCKELGITALHIKLRATGGNRTKTPGPGAQSALRALARSGMKIGRIEDVTPIPSDSTRRKGGRRGRR} \\ {\tt L}$ 

ACCAAGTGGGCGGAGTGGCCTTCTGTGGACGAATCAGATTCCTCTCCAGCACCGACTTTAAGAGGCGAGCCGGGG GGTCAGGGTCCCAGATGCACAGGAGGAGAAGCAGGAGCTGTCGGGAAGATCAGAAGCCAGTCATGGATGACCAGC GCGACCTTATCTCCAACAATGAGCAACTGCCCATGCTGGGCCGGCGCCCTGGGGCCCCGGAGAGCAAGTGCAGCC  ${\tt GCGGAGCCCTGTACACAGGCTTTTCCATCCTGGTGACTCTGCTCCTCGCTGGCCAGGCCACCACCGCCTACTTCC}$ TGTACCAGCAGCAGGCCGGCTGGACAAACTGACAGTCACCTCCCAGAACCTGCAGCTGGAGAACCTGCGCATGA AGCTTCCCAAGCCTCCCAAGCCTGTGAGCAAGATGCGCATGGCCACCCCGCTGCTGATGCAGGCGCTGCCCATGG GAGCCCTGCCCCAGGGGCCCATGCAGAATGCCACCAAGTATGGCAACATGACAGAGGACCATGTGATGCACCTGC TCCAGAATGCTGACCCCCTGAAGGTGTACCCGCCACTGAAGGGGAGCTTCCCGGAGAACCTGAGACACCTTAAGA ACACCATGGAGACCATAGACTGGAAGGTCTTTGAGAGCTGGATGCACCATTGGCTCCTGTTTGAAATGAGCAGGC  ${\tt ACTCCTTGGAGCAAAAGCCCACTGACGCTCCACCGAAAGTACTGACCAAGTGCCAGGAAGAGGTCAGCCACATCC}$ CTGCTGTCCACCCGGGTTCATTCAGGCCCAAGTGCGACGAGAACGGCAACTATCTGCCACTCCAGTGCTATGGGA GCATCGGCTACTGCTGGTGTCTTCCCCAACGGCACGGAGGTCCCCAACACCAGAAGCCGCGGGCACCATAACT GCAGTGAGTCACTGGAACTGGAGGACCCGTCTTCTGGGCTGGGTGTGACCAAGCAGGATCTGGGCCCAGTCCCCA TGTGAGAGCAGCAGCGGTCTTCAACATCCTGCCAGCCCCACACGCTACAGCTTTCTTGCTCCCTTCAGCCC CCAGCCCCCCCATCTCCCACCCTGTACCTCATCCCATGAGACCCTGGTGCCTGGCTCTTTCGTCACCCTTGG ACAAGACAAACCAAGTCGGAACAGCAGATAACAATGCAGCAAGGCCCTGCTGCCCAATCTCCATCTGTCAACAGG GGCGTGAGGTCCCAGGAAGTGGCCAAAAGCTAGACAGATCCCCGTTCCTGACATCACAGCAGCCTCCAACAAG GCTCCAAGACCTAGGCTCATGGACGAGATGGGAAGGCACAGGGAGAAGGGATAACCCTACACCCAGACCCCAGGC TGGACATGCTGACTGTCCTCTCCCCTCCAGCCTTTGGCCTTGGCTTTTCTAGCCTATTTACCTGCAGGCTGAGCC ACTCTCTTCCCCTTCCCCAGCATCACTCCCCAAGGAAGAGCCAATGTTTTCCACCCATAATCCTTTCTGCCGACC CCTAGTTCCCTCTGCTCAGCCAAGCTTGTTATCAGCTTTCAGGGCCATGGTTCACATTAGAATAAAAGGTAGTAA TTAG

#### 1845/6881 FIGURE 1712A

AAGAGGAAGAGGAAGCGGAGGGAACTGCGGCCAGGCTAAAAGGGGAAGAAGAGGATCAGCCCAAGGAGGAGGA AGAGGAAAACAAGACAAACAGCCAGTGCAGAGGAGGAGGAACGTGTCCCAGTGTCCCGATCCCTGCGGAGCTAGT AGCTGAGAGCTCTGTGCCCTGGGCACCTTGCAGCCCTGCACCTGCCACCTCCCCACCGAGGCCATGGGCCC AGGAGTTCTGCTGCTGCTGGTGGCCACAGCTTGGCATGGTCAGGGAATCCCAGTGATAGAGCCCAGTGTCCC TGAGCTGGTCGTGAAGCCAGGAGCAACGGTGACCTTGCGATGTGTGGGCAATGGCAGCGTGGAATGGCATGGCCC CCCATCACCTCACTGGACCCTGTACTCTGATGGCTCCAGCAGCATCCTCAGCACCAACAACGCTACCTTCCAAAA CACGGGGACCTATCGCTGCACTGAGCCTGGAGACCCCCTGGGAGGCAGCGCCGCCATCCACCTCTATGTCAAAGA CCCTGCCCGGCCCTGGAACGTGCTAGCACAGGAGGTGGTCGTGTTCGAGGACCAGGACGCACTACTGCCCTGTCT TGCCCTGATGGGTGGCAGGAAGGTGATGTCCATCAGCATCCGGCTGAAAGTGCAGAAAGTCATCCCAGGGCCCCC CGTTGATGTTAACTTTGATGTCTTCCTCCAACACAACAACACCCAAGCTCGCAATCCCTCAACAATCTGACTTTCA TAATAACCGTTACCAAAAAGTCCTGACCCTCAACCTCGATCAAGTAGATTTCCAACATGCCGGCAACTACTCCTG  $\tt CGTGGCCAGCAGCGCCAGCACCTCCATGTTCTTCCGGGTGGTAGAGAGTGCCTACTTGAACTT$  $\tt CCCAGGCCTGCAAGGTTTTAACTGGACCTACCTGGGACCCTTTTCTGACCACCAGCCTGAGCCCAAGCTTGCTAAGCTGCTAAGCTTGCTAAGCTGCTAAGCTTGCTAAGCTGCTAAGCTGCTAAGCTTGCTAAGCTGCTAAGCTGCTAAGCTTAAGCTGCTAAGCTAAG$ CTACTCCTTCCTGGCCAGAAACCCAGGAGGCTGGAGAGCTCTGACGTTTGAGCTCACCCTTCGATACCCCCCAGA GGTAAGCGTCATATGGACATTCATCAACGGCTCTGGCACCCTTTTGTGTGCCTCCTGGGTACCCCCAGCCCAA CGTGACATGGCTGCAGTGCAGTGGCCACACTGATAGGTGTGATGAGGCCCAAGTGCTGCAGGTCTGGGATGACCC ATACCCTGAGGTCCTGAGCCAGGAGCCCTTCCACAAGGTGACGGTGCAGAGCCTGCTGACTGTTGAGACCTTAGA GCACAACCAAACCTACGAGTGCAGGGCCCACAACAGCGTGGGGAGTGGCTCCTGGGCCTTCATACCCATCTCTGC AGGAGCCCACACGCATCCCCCGGATGAGTTCCTCTTCACACCAGTGGTGGTCGCCTGCATGTCCATCATGGCCTT GCTGCTGCTGCTGCTGCTGCTATTGTACAAGTATAAGCAGAAGCCCAAGTACCAGGTCCGCTGGAAGATCAT CGAGAGCTATGAGGGCAACAGTTATACTTTCATCGACCCCACGCAGCTGCCTTACAACGAGAAGTGGGAGTTCCC CCGGAACAACCTGCAGTTTGGTAAGACCCTCGGAGCTGGAGCCTTTGGGAAGGTGGTGGAGGCCACGGCCTTTGG TCTGGGCAAGGAGGATGCTGTCCTGAAGGTGGCTGTGAAGATGCTGAAGTCCACGGCCCATGCTGATGAGAAGGA GGCCCTCATGTCCGAGCTGAAGATCATGAGCCACCTGGGCCAGCACGAGAACATCGTCAACCTTCTGGGAGCCTG TACCCATGGAGGCCCTGTACTGGTCATCACGGAGTACTGTTGCTATGGCGACCTGCTCAACTTTCTGCGAAGGAA TGTCTCCACTTCTTCAAATGACTCCTTCTCTGAGCAAGACCTGGACAAGGAGGATGGACGGCCCCTGGAGCTCCG GGACCTGCTTCACTTCTCCAGCCAAGTAGCCCAGGGCATGGCCTTCCTCGCTTCCAAGAATTGCATCCACCGGGA CGTGGCAGCGCGTAACGTGCTGTTGACCAATGGTCATGTGGCCAAGATTGGGGACTTCGGGCTAGGGACAT TGACTGTGTCTACACGGTTCAGAGCGACGTCTGGTCCTATGGCATCCTCCTCTGGGAGATCTTCTCACTTGGGCT CCAGCAGATCTGCTCCTTCAGGAGCAGGCCCAAGAGGACAGGAGAGAGCGGGACTATACCAATCTGCCGAG CAGCAGCAGAAGCGGTGGCAGCAGCAGCAGCAGTGAGCTGGAGGAGGAGAGCTCTAGTGAGCACCTGACCTG CTGCGAGCAAGGGGATATCGCCCAGCCCTTGCTGCAGCCCAACAACTATCAGTTCTGCTGAGGAGTTGACGACAG GCCTTCGGTCATTTCACTCAACAGCTCGGCCCAGCTCTGAAACTTGGGAAGGTGAGGGATTCAGGGGAGGTCAGA ACTGTTCTCATGGTGTTGGCCTCGTGTTTGCTATGCCAACTAGTAGAACCTTCTTTCCTAATCCCCTTATCTTCA TGGAAATGGACTGACTTTATGCCTATGAAGTCCCCAGGAGCTACACTGATACTGAGAAAACCAGGCTCTTTGGGG

### 1846/6881 FIGURE 1712B

## FIGURE 1713

GCGGCGCGGGAAGTGAAGGAGCAGAGCGGCCAGTGGGTTGGGCCAGAAAGTGTGCTCGCAGGGGCCGAACTTTGT AATTCCCGCTTCCCTTACCTCCACGCCCTTCCTGGTAGCGGGTATTTTAAGTTTCCTAAGTCTCCCGCCACGTGG CTAGGCTCTGCGCGCCCCCCTGGGGCAAGGAGGTTGCTGCGAGTCTCGGGGGTGGATTGCGACCAGCCCCTCG GGGGAGCGCCTGGAAAAGGGACCCTACAGCCTCTTAGTTGAGCTGGAACTCAGGCCTTTAGCGATTGTCTGTACT GAGACGGTCAGCTTTGGTACTCGAACTCGTGGTACAGTCATTTCTTACTTGATTAATTCAACTGTTAATCCGGTA CTCAGGGTGCTTCCTGGTGTTCGAATGAAGTGTTTCCTGGCTCAGCCCGTAACCCTTCTGGACATCTATACACAC TGGCAACAAACCTCAGAGCTTGGTCGGAAGCGGAAGGCAGGGAAGATGCGGCACTGCAAGCTAAGAAAACCCGT GTGTCAGACCCCATCAGCACCTCGGAGAGCTCGGAAGAGGAGGAAGAAGCAGAAGCCGAAACCGCCAAAGCCAGT TTCTATGAAATGGGGGAAGCCCAAAGGTCCCAGTCTCCTAACTCCTGGTGTTACGGATTGAATTGTGTTTCCCCA AAAGGTGTTGTGCTGAGCCTCTGGCTGACAGCTGTGTTTTCTCTGCTCAGCAAAGGCTTTAACCATAAACAGGAG AAATCGGCCCAGACAGTTGCTGGTACTTTCTGCCCAGTACTACTTCACAGAGTCAGTGTCCAGCTTCCGAACAGC ATGGAGGCAGCTCTGAGTCATCCGAATCCCAGTGGCCCCCACAGCCTGCTCAGCTTCGGCTACCTGTCCTGGGAC TGGGCCAAGCCGAGCTTCGTGGCCGACGGGCCCGGGGAGGCTGGCGAGCAGCCCTCGGCCGCTCCGCCCAGCCT CCCCACATCATCTTCATCCTCACGGACGACCAAGGCTACCACGACGTGGGCTACCATGGTTCAGATATCGAGACC CCTACGCTGGACAGGCTGGCGGCCAAGGGGGTCAAGTTGGAGAATTATTACATCCAGCCCATCTGCACGCCTTCG CGGAGCCAGCTCCTCACTGGCAGGTACCAGATCCACACAGGACTCCAGCATTCCATCATCCGCCCACAGCAGCCCC AACTGCCTGCCCTGGACCAGGTGACACTGCCACAGAAGCTGCAGGAGGCAGGTTATTCCACCCATATGGTGGGC ACGGGCAATGTGGACTATTACACCTATGACAACTGTGATGGCCCAGGCGTGTGCGGCTTCGACCTGCACGAGGGT AGCCACAGCCCTCAGCGTCCCCTCTTCCTCTATGTGGCCTTCCAGGCAGTACACACCCCTGCAGTCCCCTCGT GAGTACCTGTACCGCTACCGCACCATGGGCAATGTGGCCCGGCGGAAGTACGCGGCCATGGTGACCTGCATGGAT GAGGCTGTGCGCAACATCACCTGGGCCCTCAAGCGCTACGGTTTCTACAACAACAGTGTCATCATCTTCTCCAGT GACAATGGTGGCCAGACTTTCTCGGGGGGCAGCAACTGGCCGCTCCGAGGACGCAAGGGCACTTATTGGGAAGGT GGCGTGCGGGGCCTAGGCTTTGTCCACAGTCCCCTGCTCAAGCGAAAGCAACGGACAAGCCGGGCACTGATGCAC ATCACTGACTGGTACCCGACCCTGGTGGGTCTGGCAGGTGGTACCACCTCAGCAGCCGATGGGCTAGATGGCTAC AACCATGCCCAGCATGGCTCCCTGGAGGGCGGCTTTGGCATCTGGAACACCGCCGTGCAGGCTGCCATCCGCGTG GGTGAGTGGAAGCTGCTGACAGGAGACCCCGGCTATGGCGATTGGATCCCACCGCAGACACTGGCCACCTTCCCG GGTAGCTGGTGGAACCTGGAACGAATGGCCAGTGTCCGCCAGGCCGTGTGGCTCTTCAACATCAGTGCTGACCCT TATGAACGGGAGGACCTGGCCGGCCGGCCTGATGTGGTCCGCACCCTGCTGGCCCGCCTGCCGAATATAAC AAATGCAAGATTTGCAAGCTTCGATCCTTTTTCCGTAAACTCAACACCAGGCTAATGTCCCAACGGATCTGA

LDRLAAKGVKLENYYIQPICTPSRSQLLTGRYQIHTGLQHSIIRPQQPNCLPLDQVTLPQKLQEAGYSTHMVGKW HLGFYRKECLPTRRGFDTFLGSLTGNVDYYTYDNCDGPGVCGFDLHEGENVAWGLSGQYSTMLYAQRASHILASH SPQRPLFLYVAFQAVHTPLQSPREYLY

**ATG**GGGATAATCAGGCACAGGTCTTTCCGCCAATGCGTTATGATGATTAAAGAAGTTGTCATATTTGTGAACTCG  $\tt CGGCAAATCTGGCCTCTCTGTGATTTCATCACTGTGCACACTCCTCTCCTGCCCTCCACGACAGGCTTGCTGAAT$ GACAACACCTTTGCCCAGTGCAAGAAGGGGGTGCGTGTGGTGAACTGTGCCCGTGGAGGGATCGTGGACGAAGGC AAAGCCTATAGCTTATTGTCTCTTTCATCCATGGTAAAAGGAGAAAACTGTGTTGCCAAAAACACACCTTTGTGG  $\tt TTTGAGGAGTCCTTGCGGAGCCTGTACCTGCTTCTTGCCCGAGGTGTGCCTGCAGAGGGGCTCCCCTAACTGC$ ATCCTGAGGGTGCTCCCACTATGCACCCTGTGCCAAGCCTGGACACCTGAGGGATCTGTGCCCAATGCTACTGGA GCCAAGGCTGGGGCTACCTTTAGTGATAGTGTTATTATTGTAATTATTGTAACCATTGTCACAGAATGTCCAGAC TGGTATGCAGGTATAGCTCATTACCAGGAGGAAAACACAGAAGGTCTTTGTGCAGTTGCTGTGTTTTGAGTTTC TCTGGGATAGCTTGTATTTTGCCAGCAAATGAAAGCTTTGGACCTCTGCAGATGTCACTTGGAGGAGCAGTCAAA GACATCTTCAGGTTCATGGTCATATTCATTATGGTGTTTTGTGGCCTTTATGATTGGAACGTACAACTTCTACTCC TACTACATTGGTGCAAAACAAAATGAAGCCTTCACAACAGTTGAAGAGAGTTTTAAGACACTGTTCTGGGCTATA TTTGGACTTGCTGAAGTGAAATCAGTGGTCATCAACTATAACCACAAATTCATTGAAAATATTGGTTATGTTCGT GAAATTGAGGATGATGCTGATGTGGAGTAG

MGIIRHRSFRQCVMMIKEATFSDSVIIVIIVTIVTECPDWYAGIAHYQEENTEGLCAVAVVLSFSGIACILPANE SFGPLQMSLGGAVKDIFRFMVIFIMVFVAFMIGTYNFYSYYIGAKQNEAFTTVEESFKTLFWAIFGLAEVKSVVI NYNHKFIENIGYVRYGVYNVTVVIVLLNVLIAMINNSFQEIEDDADVE

**ATG**GCGACTGCGACCCCGTGCCGCCGCGGATGGGCAGCCGCGCTGGCGGCCCCACCACGCCGCTGAGCCCCACG CGCCTGTCGCGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACATCGACAAGGTG CGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGTGCGCGGCCGTGAGCTC GCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGCTGCTCCTCAACTATGCTAAGAAGGAA  ${\tt TCTGATCTTAATGGCGCCCAGATCAAGCTTCGAGAATATGAAGCAGCACTGAATTCGAAAGATGCAGCTCTTGCT}$ ACTGCACTTGGTGACAAAAAAGTTTAGAGGGAGATTTGGAGGATCTGAAGGATCAGATTGCCCAGTTGGAAGCC TCCTTAGCTGCAGCCAAAAAACAGTTAGCAGATGAAACTTTACTTAAAGTAGATTTGGAGAAATCGTTGTCAGAGC GAGCAACATGATGCCCAAGTGAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAAACTTGAGAATGCC AGACTGTCATCAGAGATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAAGCCGCATGAGAATT GAGAGCCTTTCATCCCAGCTTTCTAATCTACAGAAAGAGTCTAGAGCATGTTTGGAAAGGATTCAAGAATTAGAG GATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGT GCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGGTTGAAGCTGTCTCCAAGCCCTTCTTCCCGTGTGACAGTA TCCCGAGCATCCTCAAGTCGTAGTGTACGTACAACTAGAGGAAAGCGGAAGAGGGTTGATGTGGAAGAATCAGAG GCGAGTAGTAGTGTTAGCATCTCTCATTCCGCCTCAGCCACTGGAAATGTTTGCATCGAAGAAATTGATGATT GGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGGGAGGCTGGGAGATGATCAGAAAAATT GCAAACGCTGGTGTCACAGCCAGCCCCCCAACTGACCTCATCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAA GATGTGAAGGTTATATTGAAAAATTCTCAGGGAGAGGAGGTTGCTCAAAGAAGTACAGTCTTTAAAACAACCATA CCTGAAGAAGAGGAGGAGGAAGAAGCAGCTGGAGTGGTTGTTGAGGAAGAACTTTTCCACCAGCAGGGAACC CCAAGAGCATCCAATAGAAGCTGTGCAATTATG<u>TAA</u>AATTTTCAACTGTCTTCCTCAAAATAAAGAAGTATGGTA ATCTTTACCTGTATACAGTGCAGAGCCTTCTCAGAAGCACAGAATATTTTTATATTTCCTTTATGTGAATTTTTA AGCTGCAAATCTGATGGCCTTAATTTCCTTTTTGACACTGAAAGTTTTGTAAAAGAAATCATGTCCATACACTTT GTTGCAAGATGTGAATTATTGACACTGAACTTAATAACTGTGTACTGTTCGGAAGGGGTTCCTCAAATTTTTTGA TATAATTTTTTTTAAAATAGAAATTTTGTAAGAAGGCAATATTAACCTAATCACCATGTAAGCACTCTGGATGAT GTGGAGGGAGGGAAGGGTTTCTCTATTAAAATGCATTCGTTGTGTTTTTTAAGATAGTGTAACTTGCTTAAATTT CTTATGTGACATTAACAAATAAAAAAGCTCTTTT

MATATPVPPRMGSRAGGPTTPLSPTRLSRLQEKEELRELNDRLAVYIDKVRSLETENSALQLQVTEREEVRGREL TGLKALYETELADARRALDDTARERAKLQIELGKCKAEHDQLLLNYAKKESDLNGAQIKLREYEAALNSKDAALA TALGDKKSLEGDLEDLKDQIAQLEASLAAAKKQLADETLLKVDLENRCQSLTEDLEFRKSMYEEEINETRRKHET RLVEVDSGRQIEYEYKLAQALHEMREQHDAQVRLYKEELEQTYHAKLENARLSSEMNTSTVNSAREELMESRMRI ESLSSQLSNLQKESRACLERIQELEDLLAKEKDNSRRMLTDKEREMAEIRDQMQQQLNDYEQLLDVKLALDMEIS AYRKLLEGEEERLKLSPSPSSRVTVSRASSSRSVRTTRGKRKRVDVEESEASSSVSISHSASATGNVCIEEIDVD GKFIRLKNTSEQDQPMGGWEMIRKIGDTSVSYKYTSRYVLKAGQTVTIWAANAGVTASPPTDLIWKNQNSWGTGE DVKVILKNSQGEEVAQRSTVFKTTIPEEEEEEEEAAGVVVEEELFHQQGTPRASNRSCAIM

GGTCTCTGGTCTCCCCTCTCTGAGCACTCTGAGGTCCTTATGTCGTCAGAAGATCGAGAAGCTCAGGAGGATGAA TTGCTGGCCCTGGCAAGTATTTACGATGGAGATGAATTTAGAAAAGCAGAGTCTGTCCAAGGTGGAGAAACCAGG ATCTATTTGGATTTGCCACAGAATTTCAAGATATTTGTGAGCGGCAATTCAAATGAGTGTCTCCAGAATAGTGGC CCACCTTCATTCACACTTAGTGGCAAATGGCTGTCACCAACTCAGCTATCTGCTCTATGCAAGCACTTAGACAAC CTATGGGAAGAACACCGTGGCAGCGTGGTCCTGTTTGCCTGGATGCAATTTCTTAAGGAAGAGACCCTAGCATAC TTGAATATTGTCTCTCTTTTGAGCTCAAGATTGGTTCTCAGAAAAAAGTGCAGAGAAGGACAGCTCAAGCTTCT CCCAACACAGAGCTAGATTTTGGAGGAGCTGCTGGATCTGATGTAGACCAAGAGGAAATTGTGGATGAGAGAGCA GTGCAGGATGTGGAATCACTGTCAAATCTGATCCAGGAAATCTTGGACTTTGATCAAGCTCAGCAGATAAAATGC TTTAATAGTAAATTGTTCCTGTGCAGTATCTGTTTCTGTGAGAAGCTGGGTAGTGAATGCATGTACTTCTTGGAG TGCAGGCATGTGTACTGCAAAGCCTGTCTGAAGGACTACTTTGAAATCCAGATCAGAGATGGCCAGGTTCAATGC CTCAACTGCCCAGAACCAAAGTGCCCTTCGGTGGCCACTCCTGGTCAGGTCAAAGAGTTAGTGGAAGCAGAGTTA TTTGCCCGTTATGACCGCCTTCTCCTCCAGTCCTCCTTGGACCTGATGGCAGATGTGGTGTACTGCCCCCGGCCG TGCTGCCAGCTGCCTGTGATGCAGGAACCTGGCTGCACCATGGGTATCTGCTCCAGCTGCAATTTTGCCTTCTGT ACTTTGTGCAGGTTGACCTACCATGGGGTCTCCCCATGTAAGGTGACTGCAGAAAATTAATGGACTTACGAAAT GAATACCTGCAAGCGGATGAGGCTAATAAAAGACTTTTGGATCAAAGGTATGGTAAGAGAGTGATTCAGAAGGCA CTGGAAGAGATGGAAAGTAAGGAGTGGCTAGAGAAGAACTCAAAGAGCTGCCCATGTTGTGGAACTCCCATAGAG AAATTAGACGGATGTAACAAGATGACATGTACTGGCTGTATGCAATATTTCTGTTGGATTTGCATGGGTTCTCTC TCTAGAGCAAACCCTTACAAACATTTCAATGACCCTGGTTCACCATGTTTTAACCGGCTGTTTTATGCTGTGGAT GTTGACGACGATATTTGGGAAGATGAGGTAGAAGACTAGTTAACTACTGCTCAAGATATGGAAGTGGATTGTTTT AGAAGATATGGAAGAACGAGGTTTATATTTTCATGTGGTACTACTGAAGAAGGTGCATTGATACATTTTTAAATG TAAGTTGAGAAAAATTTATAAGCCAAAGGTTCAGAAAATTAAACTACAGAA

### FIGURE 1721

CGCGGCGCCTTTCTAGCCGCTGTCCCAAGGGTTGGTCTCGCGCTTTCGGCTGCGAGCTCTCTGTGGTGCTGGCA GCGACATGTGGCGCCTCCCGGGACTCCTGGGCCGAGCTCTTCCCCGTACACTGGGACCTAGCCTCTGGAGGGTGA CTCCTAAGTCCACCAGCCCAGATGGGCCTCAGACTACCTCCTCCACTTTGCTGGTTCCTGTGCCTAACCTCGACA CTTCCCGTGTCTCCCCGAACACCCTATGGGATGCCATATCTTGGGGCACTCTGGCCGTGCTGGCCCTGCAGCTGG CAAGGCAGATCCACTTCCAGGCATCCCTGCCAGCAGGACCTCAGCGGGTAGAACACTGCTCCTGGCACAGTCCCC TGGACCGTTTCTCTCATCTCCCTTGTGGCACCCATGCTCCTCACTGCGACAACACATCCTCCCCAGCCCCGATG GCCCAGCTCCCAGGCACACTGGCCTCAGGGAACCCAGGCTTGGCCAGGAAGAGCCTCAGCTCAGCCCCGGAACT TCTCACACACTCTTTGAGAGGAGCTCGTCCTCAGGACCCCTCTGAGGAAGGTCCCGGTGATTTTGGCTTCCTGC ATGCCAGTAGTAGCATCGAGTCCGAGGCAAAACCAGCCCAGCCTCAGCCCACTGGTGAAAAGGAACAAGATAAAT CAAAAACTCTTTCCCTTGAGGAGGCTGTGACTTCCATTCAGCAGCTCTTCCAGCTCAGTGTTTCCATCGCTTTCA ACTTCCTGGGAACAGAGAACATGAAGAGTGGCGACCACACGGCAGCCTTTTCTTACTTCCAGAAAGCTGCAGCCC GCGGCTACAGCAAAGCGCAGTACAATGCGGGCTTGTGTCATGAGCATGGCAGAGGCACCCCCAGGGACATTAGCA AGGCGGTCCTTTATTATCAGTTGGCTGCCAGCCAGGCCAGCCTGGCTCAGTACCGCTATGCCAGGTGCCTAC TACGAGACCCAGCCTCTTCGTGGAACCCTGAGCGGCAGAGGGCAGTGTCCTTGCTGAAGCAGGCTGCAGACTCAG GCTTGAGAGAGGCCCAAGCTTTCCTCGGGGTGCTTTTCACCAAGGAGCCCTACCTGGATGAGCAGAGAGCTGTGA AATATCTTTGGCTTGCAGCCAACAATGGGGACTCACAGAGCAGGTACCACCTTGGAATTTGCTATGAGAAAGGCC TTGGTGTGCAGAGGAATCTGGGAGAGGCCTTGAGATGTTACCAGCAGTCAGCCGCTCTGGGAAATGAGGCCGCCC AGGAGAGGCTGCGAGCCCTCTTTTCCATGGGGGCTGCAGCCCGGGGCCCAGCGACCTGACAGTTACAGGACTGA AGTCTTTCTCCAGCCCTCCCTCTGCAGCTTGAACACCCTGCTAGCAGGAACCTCACGCCTACCACATGCCTCGA CCCCACACCCCTACCCACTGGAAAGGAGTGTTGTAAGACTAGGTTTTGGCTAAGGTGAGATAAAACATAGTCCCT GGTGCCTCTTAGGGGCCAGAGCGGCAGGAGGTTGGATAACAAAAATAGAGCATCAGCAACCCTTTCCAGGTAGA AATTCCAGCGGGAGTTCAGGTTCCCAAGCAATTTCACGTACATGGCTGGTAAGTGACTGATCTTTCCCCCCGCTT GGTAGCCTCACAGATGAGTCTTGGATGCATTCACAGTCATTTCTGGTCTGTGCACCAAAGGATGCATTCAGTGAC CTATGAAAAACCCTACTGAAGGGTCCAGAGACCCTGGTGCTCACCTTAGCCTTTGTCTTTGAGCAAATAACTTAC CTTCTTCCTTCTTATGCCTGGGTTTTCTCACACTTAAATCTGTACTGTTTTGCCAATGTCTGATGTGTGTATC CCTGGTTCACAAGAAGATTTTAGATGGTATTCAAATTAATATTTTCTATTTAGTTATATTTTAATGTATAATAT AGTGAATCAGTTTAAAGAAAAACATAACGTAAAAGTGGGCACAGATCCAGAGGGTAGCAAAAAATCACAGGGGTG GTTCCATGAATGGCTGACACTTAGGAAACTCTGAATTAGGCCATCCTCGAGACTAGCCCACCATTCACCTCTGTT GATGTGTCTGCTTGACTTCCAGAACTTCTCACCTCAGCCCTAAAGAGGGAGCCTGTGGGTTCTCAGAGAGATATC ACAATTTGAGTCCCAAAGAAGAGGGCCAGATACCCACCTTCCCCCAAATCTTAAGCACCTGCGCCAGTACAG TCAAGAAGAGGAAAGTGTGTGAAGACCCAGGTCTGGCTCTGCCACTTGCCTGGCCATGTCACCTTGAAGCTGTGA CCTGACTCCCTATATTGTTTCCTCAGTTGTAGACCAAAGGCAATGGTGTCTGCCCTCCTACCTTAGAAGACAAAT GCAAGGGCATTTCACCACAGAGAGGACCTTTGTGCTCACTTTGGCCCAGGAGGCAGTGATGCTCATGGTTGCATG ACTITATGAGTCGCTGGGCCAGGGTGAGGACCTGGGCCTCCTGACTCCTGGCCCAGAGTTCTTGTCCATCAGTTC ATACTGCAATTTTATGTGAAAGCATTATGACTGTCCTACCCATGGGAGAGTAAATGTAGATTGAATGCTAGGAGT CTTAAAGCTGGAGAGTATAGATTTTGAGGTCCCCATTTGGGAAACATGTGCCAGAAATGTCTAGGTGTTTAATAA AACAGATATTGGATTATCTC

MWRLPGLLGRALPRTLGPSLWRVTPKSTSPDGPQTTSSTLLVPVPNLDRSGPHGPGTSGGPRSHGWKDAFQWMSS RVSPNTLWDAISWGTLAVLALQLARQIHFQASLPAGPQRVEHCSWHSPLDRFFSSPLWHPCSSLRQHILPSPDGP APRHTGLREPRLGQEEASAQPRNFSHNSLRGARPQDPSEEGPGDFGFLHASSSIESEAKPAQPQPTGEKEQDKSK TLSLEEAVTSIQQLFQLSVSIAFNFLGTENMKSGDHTAAFSYFQKAAARGYSKAQYNAGLCHEHGRGTPRDISKA VLYYQLAASQGHSLAQYRYARCLLRDPASSWNPERQRAVSLLKQAADSGLREAQAFLGVLFTKEPYLDEQRAVKY LWLAANNGDSQSRYHLGICYEKGLGVQRNLGEALRCYQQSAALGNEAAQERLRALFSMGAAAPGPSDLTVTGLKS FSSPSLCSLNTLLAGTSRLPHASSTGNLGLLCRSGHLGASLEASSRAIPPHPYPLERSVVRLGFG

#### 1857/6881 FIGURE 1723A

GCCCTCCTGATTCTGGGGCCTCCCAGGATGGAGCACCTGAGGCACAGCCCAGGCCCTGGGGGGCAACGGCTACTG CTGCCCTCCATGCTGCTAGCACTGCTGCTGCTGCTCCATCCCCAGGCCACGCCACTCGGGTAGTGTACAAG GTGCCGGAGGAACAGCCACCCAACACCCTCATTGGGAGCCTCGCAGCCGACTATGGTTTTCCAGATGTGGGGCAC CTGTACAAGCTAGAGGTGGGTGCCCCGTACCTTCGCGTGGATGGCAAGACAGGTGACATTTTCACCACCGAGACC TCCATCGACCGTGAGGGGCTCCGTGAATGCCAGAACCAGCTCCCTGGTGATCCCTGCATCCTGGAGTTTGAGGTA TCTATCACAGACCTCGTGCAGAATGGCAGCCCCCGGCTGCTAGAGGGCCCAGATAGAAGTACAAGACATCAATGAC AACACCCCAACTTCGCCTCACCAGTCATCACTCTGGCCATCCTGAGAACACCCAACATCGGCTCACTCTTCCCC ATCCCGCTGGCTTCAGACCGTGATGCTGGTCCCAACGGTGTGGCATCCTATGAGCTGCAGGTGGCAGAGGACCAG GAGGAGGAGCACCACAGCTCATTGTGATGGGCAACCTGGACCGTGAGCGCTGGGACTCCTATGACCTCACCATC AAGGTGCAGGATGGCGGCAGCCCCCCACGCGCCAGCAGTGCCCTGCTGCTGTCACCGTGCTTGACACCAATGAC AACGCCCCCAAGTTTGAGCGGCCCTCCTATGAGGCCGAACTATCTGAGAATAGCCCCATAGGCCACTCGGTCATC CAGGTGAAGGCCAATGACTCAGACCAAGGTGCCAATGCAGAAATCGAATACACATTCCACCAGGCGCCCGAAGTT GTGAGGCGTCTTCTTCGACTGGACAGGAACACTGGACTTATCACTGTTCAGGGCCCGGTGGACCGTGAGGACCTA AGCACCCTGCGCTTCTCAGTGCTTGCTAAGGACCGAGGCACCCAACCCCAAGAGTGCCCGTGCCCAGGTGGTTGTG ACCGTGAAGGACATGAATGACAATGCCCCCACCATTGAGATCCGGGGCATAGGGCTAGTGACTCATCAAGATGGG ATGGCTAACATCTCAGAGGATGTGGCAGAGGAGACAGCTGTGGCCCTGGTGCAGGTGTCTGACCGAGATGAGGGA GAGAATGCAGCTGTCACCTGTGGTGGCAGGTGATGTGCCCTTCCAGCTGCGCCAGGCCAGTGAGACAGGCAGT GACAGCAAGAAGAAGTATTTCCTGCAGACTACCACCCCGCTAGACTACGAGAAGGTCAAAGACTACACCATTGAG ATTGTGGCTGTGGACTCTGGCAACCCCCCACTCTCCAGCACTAACTCCCTCAAGGTGCAGGTGGTGGACGTCAAT GACAACGCACCTGTCTTCACTCAGAGTGTCACTGAGGTCGCCTTCCCGGAAAACAACAAGCCTGGTGAAGTGATT GCTGAGATCACTGCCAGTGATGCTGACTCTGGCTCTAATGCTGAGCTGGTTTACTCTCTGGAGCCTGAGCCGGCT GCTAAGGGCCTCTTCACCATCTCACCCGAGACTGGAGAGATCCAGGTGAAGACATCTCTGGATCGGGAACAGCGG CAGAGCTATGAGTTGAAGGTGGTGGCAGCTGACCGGGGCAGTCCTAGCCTCCAGGGCACAGCCACTGTCCTTGTC AATGTGCTGGACTGCAATGACAATGACCCCAAATTTATGCTGAGTGGCTACAACTTCTCAGTGATGGAGAACATG CCAGCACTGAGTCCAGTGGGGCATGGTGACTGTCATTGATGGAGACAAGGGGGAGAATGCCCAGGTGCAGCTCTCA GTGGAGCAGGACAACGGTGACTTTGTTATCCAGAATGGCACAGGCACCATCCTATCCAGCCTGAGCTTTGATCGA GAGCAACAAGCACCTACACCTTCCAGCTGAAGGCAGTGGATGGTGGCGTCCCACCTCGCTCAGCTTACGTTGGT GTCACCATCAATGTGCTGGACGAGAATGACAACGCACCCTATATCACTGCCCCTTCTAACACCTCTCACAAGCTG  $\tt CTGACCCCCAGACACGTCTTGGTGAGACGGTCAGCCAGGTGGCAGCCGAGGACTTTGACTCTGGTGTCAATGCT$ GAGCTGATCTACAGCATTGCAGGTGGCAACCCTTATGGACTCTTCCAGATTGGGTCACATTCAGGTGCCATCACC CTGGAGAAGGAGATTGAGCGGCCCACCATGGGCTACACCGCCTGGTGGTGAAGGTCAGTGACCGCGGCAAGCCC CCACGCTATGGCACAGCCTTGGTCCATCTTTATGTCAATGAGACTCTGGCCAACCGCACGCTGCTGGAGACCCTC CTGGGCCACAGCCTGGACACGCCGCTGGATATTGACATTGCTGGGGATCCAGAATATGAGCGCTCCAAGCAGCGT GGCAACATTCTCTTTGGTGTGGTGGCTGGTGTGGTGGCCGTGGCCTTGCTCATCGCCCTGGCGGTTCTTGTGCGC TACTGCAGACAGCGGGAGGCCAAAAGTGGTTACCAGGCTGGTAAGAAGGAGACCAAGGACCTGTATGCCCCCAAG CCCAGTGGCAAGGCCTCCAAGGGAAACAAAAGCAAAGGCAAGAAGAGCAAGTCCCCAAAGCCCGTGAAGCCAGTG GAGGACGAGGATGAGGCCGGGCTGCAGAAGTCCCTCAAGTTCAACCTGATGAGCGATGCCCCTGGGGACAGTCCC CGCATCCACCTGCCCCTCAACTACCCACCAGGCAGCCCTGACCTGGGCCGCCACTATCGCTCTAACTCCCCACTG CCTTCCATCCAGCTGCAGCCCCAGTCACCCTCAGCCTCCAAGAAGCACCAGGTGGTACAGGACCTGCCACCTGCA AACACATTCGTGGGCACCGGGGACACCACGTCCACGGGCTCTGAGCAGTACTCCGACTACAGCTACCGCACCAAC CAGGACCCATCCCAGCACAGTTACTATGACAGTGGCCTGGAGGAGTCTGAGACGCCGTCCAGCAAGTCATCCTCA GGGCCTCGACTCGGTCCCCTGGCCCTGACGATCACTATGAGCGCACCACCCCTGATGGCAGCATAGGAGAG ATGGAGCACCCCGAGAATGACCTTCGCCCTTTGCCTGATGTCGCCATGACAGGCACATGTACCCGGGAGTGCAGT GAGTTTGGCCACTCTGACACATGCTGGATGCCTGGCCAGTCATCTCCCAGCCGCCGGACCAAGAGCAGCGCCCTC GAAGACCGGAACACCAAAACGGCCCCCGTGCGCCTCCTGCCCTCCTACAGTGCCTTCTCCCACAGTAGCCATGAT TCCTGCAAGGACTCGGCCACCTTGGAGGAAATCCCCCTGACCCAGACCTCGGACTTCCCACCCGCAGCCACACCG

#### 1858/6881 FIGURE 1723B

#### 1859/6881 FIGURE 1724

GGAGACGCTTCTTCCTCTTGCTGCTCTTCTCGTTCCCGAGATCAGCGGCGGCGGTGACCGCGAGTGGGTCGGCAC CGTCTCCGGCTCCGGGTGCGAACAATGCTGACTGATAGCGGAGGCGGCGCGCACCTCCTTTGAGGAGGACCTGGAC ACCGTGAGGCTCTTTGGGGAGGCCGGGCAGCGTCGGGAGTCGGCAGCAGCGGCGGCGGCGGCAGCGGCAGCGGT ACGGCGGAGGGACGCGCGCTGGATTTCAAGTTGGCGGCTGCCGTGCTGAGGACCGGGGGTGGAGGTGGTGCC CTTAAAACAACATCAGAGATATTCTTATCAAGTACTGCAGAAGGAGCAGACTTACGCACTGTGGATCCAGAGACA CAGGCACGACTAGAAGCATTGCTAGAAGCAGCAGGAATTGGCAAATTGTCAACTGCTGATGGTAAAGCTTTTGCA **ATG**AAAGCAGAAAACAGCCACAATGCAGGACAAGTGGACACTCGCAGTCTAGCAGAAGCTTGTTCAGATGGGGAT GTTAATGCTGTTCGTAAATTGCTAGATGAAGGCAGAAGTGTAAATGAACATACAGAAGAAGGAGAAAGCCTGCTG GGGAATAAAGGAGACATAACTCCCCTGATGGCAGCTTCCAGTGGAGGTTACTTAGATATTGTGAAATTATTACTT CTTCATGATGCTGATGTCAACTCCCAGTCTGCAACAGGAAACACTGCGCTAACTTATGCATGTGCTGGAGGATTT GTTGACATTGTTAAAGTGCTCCTTAATGAAGGTGCAAATATAGAAGATCATAATGAAAATGGACATACTCCCTTA ATGGAAGCAGCCAGTGCAGGTCATGTGGAAGTTGCAAGAGTTCTTTTAGATCATGGTGCAGGCATCAACACTCAT GTAGAGGTGGCACGTTTGCTTTTGGATAGTGGTGCTCAAGTGAACATGCCTGCAGATTCATTTGAATCTCCATTG ACGCTAGCTGCCTGTGGAGGACATGTTGAATTGGCAGCTCTACTTATTGAAAGGGGAGCAAATCTTGAAGAAGTT AATGATGAAGGATACACTCCCTTGATGGAAGCTGCCCGGGAAGGACATGAAGAAATGGTGGCACTACTCTTAGCA CAAGGAGCAAATATAAATGCCCAGACAGAAGAAACTCAAGAAACTGCTCTTACTTTGGCTTGCTGTGGAGGATTT TCTGAAGTTGCAGACTTTCTTATTAAGGCAGGGGCTGATATAGAACTTGGCTGCTCCACACCTCTGATGGAGGCA TCTCAGGAGGGACACCTGGAATTGGTTAAATATTTGCTGGCTTCTGGCGCTAATGTGCATGCTACAACAGCAACA GGAGACACGCCTTAACCTATGCTTGTGAAAATGGACATACGGATGTTGCAGATGTTTTACTTCAAGCAGGGGCT GATTTAGACAAGCAGGAGGACATGAAGACTATTTTGGAGGGCATAGATCCGGCCAAGCATCAGGTGAGGGTGGCC TTTGATGCTTGTAAGCTACTACGTAAAGAATAGATGTTGTAGGTAACCAGAACTCTGGATATCTGAATTCCAGCC AAGAAGTTCCAGGACCCTGCTGGGTGACAAAGGAAATCCTCTTCAATTGAAAAAGATTATGAAGTCCCAATAAAA 

MKAENSHNAGQVDTRSLAEACSDGDVNAVRKLLDEGRSVNEHTEEGESLLCLACSAGYYELAQVLLAMHANVEDR GNKGDITPLMAASSGGYLDIVKLLLLHDADVNSQSATGNTALTYACAGGFVDIVKVLLNEGANIEDHNENGHTPL MEAASAGHVEVARVLLDHGAGINTHSNEFKESALTLACYKGHLDMVRFLLEAGADQEHKTDEMHTALMEACMDGH VEVARLLLDSGAQVNMPADSFESPLTLAACGGHVELAALLIERGANLEEVNDEGYTPLMEAAREGHEEMVALLLA QGANINAQTEETQETALTLACCGGFSEVADFLIKAGADIELGCSTPLMEASQEGHLELVKYLLASGANVHATTAT GDTALTYACENGHTDVADVLLQAGADLDKQEDMKTILEGIDPAKHQVRVAFDACKLLRKE

GGCACGAGGGCGGGAAGATGGCGGATGACAAGGATTCTCTGCCTAAGCTTAAGGACCTGGCATTTCTCAAGAAC CAGCTGGAAAGCCTGCAGCGGCGTGTAGAAGACGAAGTCAACAGTGGAGTGGGCCAGGATGGCTCGCTGTTGTCC TCCCCGTTCCTCAAGGGATTCCTGGCTGGCTATGTGGTGGCCAAACTGAGGGCATCAGCAGTATTGGGCTTTGCT GTGGGCACCTGCACTGGCATCTATGCGGCTCAGGCATATGCTGTGCCCAACGTGGAGAAGACATTAAGGGACTAT TTGCAGTTGCTACGCAAGGGGCCCGACTAGCTCTAGGTGCCATGGAAGAGGCAGGATGAGCAGCTCAGCCTTCAG GTGGAGACACTTTATCTGGATTCCCCAGCTGTCATCCATTTGCTATCTCCAACTTTCCTGCCACCTTCATCCTTG CCTCCCTTCCTGCAGATTGTGGACAGTAGTTCCTCAGCCTGCACCCTGGATTCCTTCTTCCCCTTCCTAGCTCCA TGGGACTCGCCCCAAGACTGTGGCTTCAAGGACCACCAGCCCCTTACTCTTCAAGCCCTGACTGTGGAGTTGGTA GATTTTCCCCAAACGTGTTGCAATCCCTGCTGCCCCTTAGCCACCCAGGGTCTTGTGTGGGGT<u>ATG</u>AGTGTAGAGG ATGGGGGTATGCCAGGCCTGGGCCGTCCCAGGCAGGCCCGCTGGACCCTGATGCTACTCCTATCCACTGCCATGT ACGGTGCCCATGCCCCATTGCTGGCACTGTGCCATGTGGACGGCCGAGTGCCCTTCCGGCCCTCCTCAGCCGTGC TGCTGACTGACCTACCTACTGTTATGCGCCTTCTCCCTTCTGGTAGGCTGGCAAGCATGGCCCCAGGGGC CCCCACCTGGCGCCAGGCTGCTCCCTTCGCACTATCAGCCCTGCTCTATGGCGCTAACAACAACCTGGTGATCT ATCTTCAGCGTTACATGGACCCCAGCACCTACCAGGTGCTGAGTAATCTCAAGATTGGAAGCACAGCTGTGCTCT ACTGCCTCTGCCTCCGGCACCGCCTCTCTGTGCGTCAGGGGTTAGCGCTGCTGCTGCTGATGGCTGCGGGAGCCT GCTATGCAGCAGGGGGCCTTCAAGTTCCCGGGAACACCCTTCCCAGTCCCCTCCAGCAGCTGCCAGCCCCA TGCCCCTGCATATCACTCCGCTAGGCCTGCTCCTCATTCTGTACTGCCTCATCTCAGGCTTGTCGTCAGTGT ACACAGAGCTGCTCATGAAGCGACAGCGGCTGCCCCTGGCACTTCAGAACCTCTTCCTCTACACTTTTGGTGTGC  $\verb|TTCTGAATCTAGGTCTGCATGCTGGCGGGGGCTCTGGCCCAGGCCTCCTGGAAGGTTTCTCAGGATGGGCAGCAC|$  ${\tt TCGTGGTGCTGAGCCAGGCACTAAATGGACTGCTCATGTCTGCTGTCATGAAGCATGGCAGCAGCATCACACGCC}$ TCTTTGTGGTGTCCTGCTGGTGGTCAACGCCGTGCTCTCAGCAGTCCTGCTACGGCTGCAGCTCACAGCCG  $\texttt{CCTTCTTCCTGGCCACATTGCTCATTGGCCTGGCCATGCGCCTGTACTATGGCAGCCGC} \underline{\textbf{TAG}} \texttt{ICCCTGACAACTT}$  $\verb|CCACCCTGATTCLGGACCCTGTAGATTGGGCGCCACCACCAGGATCCCCCTCCCAGGCCTTCCTCCCATC|\\$ AGCAGCCCTGTAACAAGTGCCTTGTGAGAAAAGCTGGAGAAGTGAGGGCAGCCAGGTTATTCTCTGGAGGTTGGT GGATGAAGGGGTACCCCTAGGAGATGTGAAGTGTGGGTTTGGTTAAGGAAATGCTTACCATCCCCCACCCCAAC CAAGTTCTTCCAGACTAAAGAATTAAGGTAACATCAATACCTAGGCCTGAGAAATAACCCCATCCTTGTTGGGCA GCTCCCTGCTTTGTCCTGCATGAACAGAGTTGATGAAAGTGGGGTGTGGGCAACAAGTGGCTTTCCTTGCCTACT TTAGTCACCCAGCAGAGCCACTGGAGCTGGCTAGTCCAGCCCAGCCATGGTGCATGACTCTTCCATAAGGGATCC TCACCCTTCCACTTTCATGCAAGAAGGCCCAGTTGCCACAGATTATACAACCATTACCCAAACCACTCTGACAGT CTCCTCCAGTTCCAGCAATGCCTAGAGACATGCTCCCTGCCCTCTCCACAGTGCTGCTCCCCACACCTAGCCTTT GTTCTGGAAACCCCAGAGAGGGCTTGGCTTGACTCATCTCAGGGAATGTAGCCCCTGGGCCTGGCTTAAGCCGA CACTCCTGACCTCTCTGTTCACCCTGAGGGCTGTCTTGAAGCCCGCTACCCACTCTGAGGCTCCTAGGAGGTACC ATGCTTCCCACTCTGGGGCCTGCCCTGCCTAGCAGTCTCCCAGCTCCCAACAGCCTGGGGAAGCTCTGCACAGA GTGACCTGAGACCAGGTACAGGAAACCTGTAGCTCAATCAGTGTCTCTTTAACTGCATAAGCAATAAGATCTTAA 

#### 1862/6881 FIGURE 1727

MSVEDGGMPGLGRPRQARWILMLLLSTAMYGAHAPLLALCHVDGRVPFRPSSAVLLTELTKLLLCAFSLLVGWQA WPQGPPPWRQAAPFALSALLYGANNNLVIYLQRYMDPSTYQVLSNLKIGSTAVLYCLCLRHRLSVRQGLALLLLM AAGACYAAGGLQVPGNTLPSPPPAAAASPMPLHITPLGLLLLILYCLISGLSSVYTELLMKRQRLPLALQNLFLY TFGVLLNLGLHAGGGSGPGLLEGFSGWAALVVLSQALNGLLMSAVMKHGSSITRLFVVSCSLVVNAVLSAVLLRL QLTAAFFLATLLIGLAMRLYYGSR

#### 1863/6881 FIGURE 1728A

CAGAAAGCCATGTCGGACTCGGCGCCCAGCGCCCAAGCGCTAACCCGCTGAAAGTTTCTCAGCGAAATCTCAGGG  ${\tt CACCGGGAGGGTAGTGGGAGTTTTGCTTCTGCTTGGTGCCTTGAACAAGGCTTCCACGGTCATTCACTATGAGAT}$  $\tt CCCGGAGGAAAGAGAGAGGGTTTCGCTGTGGGCAACGTGGTCGCGAACCTTGGTTTGGATCTCGGTAGCCTCTC$ AGCCCGCAGGTTCCGGGTGTCTTGGAGCTAGCCGAAGATTCTTTGAGGTGAACCGGGAGACCGGAGAGATGTT TGTGAACGACCGTCTGGATCGAGAGGAGCTGTGTGGGACACTGCCCTCTTGCACTGTAACTCTGGAGTTGGTAGT GGAGAACCCGCTGGAGCTGTTCAGCGTGGAAGTGGTGATCCAGGACATCAACGACAACAATCCTGCTTTCCCTAC  $\verb|CCAGGAAATGAAATTGGAGATTAGCGAGGCCGTGGCTCCGGGGACGCGCTTTCCGCTCGAGAGCGCGCACGATCC| \\$ CGATGTGGGAAGCAACTCTTTACAAACCTATGAGCTGAGCCGAAATGAATACTTTGCGCTTCGCGTGCAGACGCG GGAGGACAGCACCAAGTACGCGGAGCTGGTGTTGGAGCGCGCCCTGGACCGAGAACGGGAGCCTAGTCTCCAGTT GAATGACAATGCGCCTGTCTTCAACCAGTCCTTGTACCGGGCGCGCGTCCTGGAGGATGCACCCTCCGGCACGCG  $\verb|CCGCGCCGGCGTGCGGCAACTATTCGCCTTAGACCTTGTAACCGGGATGCTGACAATCAAGGGTCGGCTGGACTT|\\$ CGAGGACACCAAACTCCATGAGATTTACATCCAGGCCAAAGACAAGGGCGCCAATCCCGAAGGAGCACATTGCAA AGTGTTGGTGGAGGTTGTGGATGTGAATGACAACGCCCCGGAGATCACAGTCACCTCCGTGTACAGCCCAGTACC GACCTGCGAAGTTCCACCGGGTCTCCCTTTCAGCCTTACTTCTTCCCTCAAGAATTACTTCACTTTGAAAACCAG TGCAGACCTGGATCGGGAGACTGTGCCAGAATACAACCTCAGCATCACCGCCCGAGACGCCGGAACCCCTTCCCT CTCAGCCCTTACAATAGTGCGTGTTCAAGTGTCCGACATCAATGACAACCCTCCACAATCTTCTCAATCTTCCTA CGACGTTTACATTGAAGAAAACCACCTCCCGGGGCTCCAATACTAAACCTAAGTGTCTGGGACCCCGACGCCCC GCAGAATGCTCGGCTTTCTTTCTTTCTCTTGGAGCAAGGAGCTGAAACCGGGCTAGTGGGTCGCTATTTCACAAT AAATCGTGACAATGGCATAGTGTCATCCTTAGTGCCCCTAGACTATGAGGATCGGCGGGAATTTGAATTAACAGC TCATATCAGCGATGGGGGCACCCCGGTCCTAGCCACCAACATCAGCGTGAACATATTTGTCACTGATCGCAATGA CAATGCCCCCAGGTCCTATATCCTCGGCCAGGTGGGAGCTCGGTGGAGATGCTGCCTCGAGGTACCTCAGCTGG CCACCTAGTGTCACGGGTGGTAGGCTGGGACGCGGATGCAGGGCACAATGCCTGGCTCTCCTACAGTCTCTTGGG ATCCCCTAACCAGAGCCTTTTTGCCATAGGGCTGCACACTGGTCAAATCAGTACTGCCCGTCCAGTCCAAGACAC AGATTCACCCAGGCAGACTCTCACGGTCTTGATCAAAGACAATGGGGAGCCTTCGCTCCCACCACTGCTACCCT CACTGTGTCAGTAACCGAGGACTCTCCTGAAGCCCGAGCCGAGTTCCCCTCTGGCTCTGCCCCCCGGGAGCAGAA AAAAATCTCACCTTTTATCTACTTCTTTCTCTAATCCTGGTTTCTGTGGGGTTTGTGGTCACAGTGTTCGGAGT AATCATATTCAAAGTTTACAAGTGGAAGCAGTCTAGAGACCTATACCGAGCCCCGGTGAGCTCACTGTACCGAAC ACCAGGGCCCTCCTTGCACGCGGACGCCGTGCGGGGAGGCCTGATGTCGCCGCACCTTTACCATCAGGTGTATCT  ${\tt CACCACGGACTCCCGCCGCAGCCGCTGCTGAAGAAACCTGGTGCAGCCAGTCCACTGGCCAGCCGCCAGAA}$ CACGCTGCGGAGCTGTGATCCGGTGTTCTATAGGCAGGTGTTGGGTGCAGAGAGCGCCCCTCCCGGACAGCAAGC CCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACAC CGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGC TGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCT GCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGCAA GCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAGAAGGAGAAGAAG<u>TAA</u>CATGG AGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGA GTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCCCA GTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAA CTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAGCT CCTCTTTCCCGAGTAAGGTGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGG AAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTT CACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCCATGGTACTGATGCTT GCTGGATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTTTT

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#### 1864/6881 FIGURE 1728B

MVPEAWRSGLVSTGRVVGVLLLLGALNKASTVIHYEIPEEREKGFAVGNVVANLGLDLGSLSARRFRVVSGASRR
FFEVNRETGEMFVNDRLDREELCGTLPSCTVTLELVVENPLELFSVEVVIQDINDNNPAFPTQEMKLEISEAVAP
GTRFPLESAHDPDVGSNSLQTYELSRNEYFALRVQTREDSTKYAELVLERALDREREPSLQLVLTALDGGTPALS
ASLPIHIKVLDANDNAPVFNQSLYRARVLEDAPSGTRVVQVLATDLDEGPNGEIIYSFGSHNRAGVRQLFALDLV
TGMLTIKGRLDFEDTKLHEIYIQAKDKGANPEGAHCKVLVEVVDVNDNAPEITVTSVYSPVPEDAPLGTVIALLS
VTDLDAGENGLVTCEVPPGLPFSLTSSLKNYFTLKTSADLDRETVPEYNLSITARDAGTPSLSALTIVRVQVSDI
NDNPPQSSQSSYDVYIEENNLPGAPILNLSVWDPDAPQNARLSFFLLEQGAETGLVGRYFTINRDNGIVSSLVPL
DYEDRREFELTAHISDGGTPVLATNISVNIFVTDRNDNAPQVLYPRPGGSSVEMLPRGTSAGHLVSRVVGWDADA
GHNAWLSYSLLGSPNQSLFAIGLHTGQISTARPVQDTDSPRQTLTVLIKDNGEPSLSTTATLTVSVTEDSPEARA
EFPSGSAPREQKKNLTFYLLLSLILVSVGFVVTVFGVIIFKVYKWKQSRDLYRAPVSSLYRTPGPSLHADAVRGG
LMSPHLYHQVYLTTDSRRSDPLLKKPGAASPLASRQNTLRSCDPVFYRQVLGAESAPPGQQAPPNTDWRFSQAQR
PGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIP
GSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

### FIGURE 1730A

ACGCGCCTGAAGCACAAAGCAGATAGCTAGGAATGAACCATCCCTGGGAGTATGTGGAAACAACGGAGGAGCTCT GACTTCCCAACTGTCCCATTCTATGGGCGAAGGAACTGCTCCTGACTTCAGTGGTTAAGGGCAGAATTGAAAATA ATTCTGGAGGAAGATAAGA**TC**ATTCCTGCGCGACTGCACCGGGACTACAAAGGGCTTGTCCTGCTGGGAATCCT CCTGGGGACTCTGTGGGAGACCGGATGCACCCAGATACGCTATTCAGTTCCGGAAGAGCTGGAGAAAGGCTCTAG GGTGGGCGACATCTCCAGGGACCTGGGGCTGGAGCCCCGGGAGCTCGCGGAGCCCGGAGTCCGCATCATCCCCAG AGGTAGGACGCAGCTTTTCGCCCTGAATCCGCGCAGCGCAGCTTGGTCACGGCGGCAGGATAGACCGGGAGGA GCTCTGTATGGGGGCCATCAAGTGTCAATTAAATCTAGACATTCTGATGGAGGATAAAGTGAAAATATATGGAGT AGAAGTAGAAGTAAGGGACATTAÄCGACAATGCGCCTTACTTTCGTGAAAGTGAATTAGAAATAAAAATTAGTGA AAATGCAGCCACTGAGATGCGGTTCCCTCTACCCCACGCCTGGGATCCGGATATCGGGAAGAACTCTCTGCAGAG GGTGCTGAAACGCGCCCTGGACCGCGAAGAAAAGGCTGCTCACCACCTGGTCCTTACGGCCTCCGACGGGGGCGA  $\tt CCCGGTGCGCACAGGCACCGCGCGCATCCGCGTGATGGTTCTGGATGCGAACGACAACGCACCAGCGTTTGCTCA$ GCCCGAGTACCGCGCGAGCGTTCCGGAGAATCTGGCCTTGGGCACGCAGCTGCTTGTAGTCAACGCTACCGACCC TGACGAAGGAGTCAATGCGGAAGTGAGGTATTCCTTCCGGTATGTGGACGACAAGGCGGCCCAAGTTTTCAAACT AGATTGTAATTCAGGGACAATATCAACAATAGGGGAGTTGGACCACGAGGAGTCAGGATTCTACCAGATGGAAGT GCAAGCAATGGATAATGCAGGATATTCTGCGCGAGCCAAAGTCCTGATCACTGTTCTGGACGTGAACGACAATGC CCCAGAAGTGGTCCTCACCTCTCTCGCCAGCTCGGTTCCCGAAAACTCTCCCCAGAGGGACATTAATTGCCCTTTT AAATGTAAATGACCAAGATTCTGAGGAAAACGGACAGGTGATCTGTTTCATCCAAGGAAATCTGCCCTTTAAATT AGAAAAATCTTACGGAAATTACTATAGTTTAGTCACAGACATAGTCTTGGATAGGGAACAGGTTCCTAGCTACAA CATCACAGTGACCGCCACTGACCGGGGAACCCCGCCCTATCCACGGAAACTCATATCTCGCTGAACGTGGCAGA CACCAACGACAACCCGCCGGTCTTCCCTCAGGCCTCCTATTCCGCTTATATCCCAGAGAACAATCCCAGAGGAGGA TTCCCTCGTCTCTGTGACCGCCCACGACCCCGACTGTGAAGAGAACGCCCAGATCACTTATTCCCTGGCTGAGAA CACCATCCAAGGGGCAAGCCTATCGTCCTACGTGTCCATCAACTCCGACACTGGGGTACTGTATGCGCTGAGCTC CTTCGACTACGAGCAGTTCCGAGACTTGCAAGTGAAAGTGATGGCGCGGGACAACGGGCACCCGCCCTCAGCAG  ${\tt CAACGTGTCGTTGAGCCTGTTCGTGCTGGACCAGAACGACAATGCGCCCGAGATCCTGTACCCCGCCCTCCCCAC}$ GGACGGTTCCACTGGCGTGGAGCTGGCTCCCCGCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGT GGACAGAGACTCCGGCCAGAACGCCTGGCTGTCCTACCGTCTGCTCAAGGCCAGCGAGCCGGGACTCTTCTCGGT GGGTCTGCACACGGGCGAGGTGCGCACGCGCGAGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGCCTCGTAGT GGCCGTCCAGGACCACGGCCAGCCCCTCTCTCCGCCACTGTCACGCTCACCGTGGCCGTGGCCGACAGCATCCC CCAAGTCCTGGCGGACCTCGGCAGCCTCGAGTCTCCAGCTAACTCTGAAACCTCAGACCTCACTCTGTACCTGGT GGTAGCGGTGGCCGCGTCTCCTGCGTCTTCCTGGCCTTCGTCATCTTGCTGCTGCGCCTCAGGCTGCGGCGCTG GCACAAGTCACGCCTGCTGCAGGCCTTCAGGAGGCGGCTTGACAGGAGCGCCGGCGTCGCACTTTGTGGGCGTGGA CGGGGTGCAGGCTTTCCTGCAGACCTATTCCCACGAGGTTTCCCTCACCACGGACTCGCGGAAGAGTCACCTGAT CTTCCCCAGCCCAACTATGCAGACATGCTCGTCAGCCAGGAGAGCTTTGAAAAAAAGCGAGCCCCTTTTGCTGTC AGGTGATTCGGTATTTTCTAAAGACAGTCATGGGTTAATTGAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTC TCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGA CACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGG TGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAA TGTCTACATCCCAGGCAGCAATGCCACCTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGG CANTGGCAACAAGAAGAAGTCGGGCAAGAAGGAAGAAGAAGTAACATGGAGGCCAAGAGCCACAGGGCGGC CTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTG GTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGG GGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGT TGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTC CTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAAT 

### FIGURE 1730B

 $\verb|CCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTTTTCATTGTTTGACGTTTCCACTGCATGCC|\\$ TTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTCCAAGACAGTATGGGGTGGTAAGATAAG GAAGGGAAGTGTGGATGTGGATGGTGGGGGCATGGACAAAGCTTGACACATCAAGTTATCAAGGCCTTGGAGG AGGCTCTGTATGTCCTCAGGGGACTGACAACATCCTCCAGATTCCAGCCATAAACCAATAACTAGGCTGGACCCT TCCCACTACATAATAGGGCTCAGCCCAGGCAGCCAGCTTTGGGCTGAGCTAACAGGACCAATGGATTAAACTGGC ATTTCAGTCCAAGGAAGCTCGAAGCAGGTTTAGGACCAGGTCCCCTTGAGAGGTCAGAGGGGCCTCTGTGGGTGC TTAGTCCCTGGGTTGGGGAGCAGGAGCTAGGGCAGGACCAAATGAACAGAAAGTCTCAGCCCAGGATGGGGC TTCTTCAACAGGGCCCCTGCCCTCAAGCCTCAGTCCTTCACCTTGCCAGGTGCCGTTTCTCTTCCGTGAAGG CCACTGCCCAGGTCCCCAGTGCGCCCCTAGTGGCCATAGCCTGGTTAAAGTTCCCCAGTGCCTCCTTGTGCATA GACCTTCTCCCACCCCCTTCTGCCCCTGGGTCCCCGGCCATCCAGCGGGGCTGCCAGAGAACCCCAGACCTG  $\verb|CCCTTACAGTAGTGTAGCGCCCCCTCCTTTCGGCTGGTGTAGAATAGCCAGTAGTGTAGTGCGGTGTGCTTT| \\$ TACGTGATGGCGGGTGGGCAGCGGCGGCGGCCCGCGCGCCGTCTGTCCTTGATCTGCCCGCGGCCGCCCGT GTTGTGTTTTGTGCTGTGTCCACGCGCTAAGGCGACCCCCTCCCCGTACTGACTTCTCCTATAAGCGCTTCTCT TCGCATAGTCACGTAGCTCCCACCCCACCCTCTTCCTGTGTCTCACGCAAGTTTTATACTCTAATATTTATATGG CTTTTTTCTTCGACAAAAAATAATAAAACGTTTCTTCTGAAAAGCTG

#### 1868/6881 FIGURE 1731

MIPARLHRDYKGLVLLGILLGTLWETGCTQIRYSVPEELEKGSRVGDISRDLGLEPRELAERGVRIIPRGRTQLF
ALNPRSGSLVTAGRIDREELCMGAIKCQLNLDILMEDKVKIYGVEVEVRDINDNAPYFRESELEIKISENAATEM
RFPLPHAWDPDIGKNSLQSYELSPNTHFSLIVQNGADGSKYPELVLKRALDREEKAAHHLVLTASDGGDPVRTGT
ARIRVMVLDANDNAPAFAQPEYRASVPENLALGTQLLVVNATDPDEGVNAEVRYSFRYVDDKAAQVFKLDCNSGT
ISTIGELDHEESGFYQMEVQAMDNAGYSARAKVLITVLDVNDNAPEVVLTSLASSVPENSPRGTLIALLNVNDQD
SEENGQVICFIQGNLPFKLEKSYGNYYSLVTDIVLDREQVPSYNITVTATDRGTPPLSTETHISLNVADTNDNPP
VFPQASYSAYIPENNPRGVSLVSVTAHDPDCEENAQITYSLAENTIQGASLSSYVSINSDTGVLYALSSFDYEQF
RDLQVKVMARDNGHPPLSSNVSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDRDSGQ
NAWLSYRLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADSIPQVLADL
GSLESPANSETSDLTLYLVVAVAAVSCVFLAFVILLLALRLRRWHKSRLLQASGGGLTGAPASHFVGVDGVQAFL
QTYSHEVSLTTDSRKSHLIFPQPNYADMLVSQESFEKSEPLLLSGDSVFSKDSHGLIEQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1869/6881 FIGURE 1732A

ATCGGGAGCGGCGCGGGAGCTGGGCCGGGCTGAGAGGCTGCCAGTGCTCTTTCTCTTCCTGCTGTCTTTGTTC TGCCCGGCGCTCTGTGAGCAGATCCGCTACAGGATTCCCGAGGAAATGCCCAAGGGCTCCGTAGTGGGGAACCTC GCCACGGACCTGGGGTTCAGCGTCCAGGAGTTACCGACTCGAAAACTGCGCGTCAGTTCGGAGAAGCCTTACTTC ACCGTGAGCGCAGAGAGCGGGGAGTTGCTTGTGAGCAGCAGGCTAGACAGGGAGGAGATATGCGGGAAGAAGCCA GCTTGTGCTCTGGAATTTGAGGCTGTTGCTGAAAATCCACTGAACTTTTATCACGTGAATGTGGAGATCGAGGAC ATTAATGACCACACGCCAAAATTCACGCAAAATTCCTTTGAGCTGCAAATAAGTGAGTCTGCACAGCCTGGCACA GATCATTTCTCACTGATAAATAAAGAGAAATCAGATGGCAGTAAATACCCTGAGATGGTATTGAAGACACCTTTG GACAGAGAAAAGCAGAAATCCTACCACTTGACTTTGACTGCCTTGGACTTTGGAGCTCCACCCCTAAGCAGCACT GCACAGATACACGTTCTAGTGACTGATGCCAATGATAATGCTCCAGTGTTCAGTCAAGACGTATACAGGGTGAGC  $\verb|CTTTCAGAAAACGTGTACCCGGGGACCACGGTGCTACAGGTGACTGCCACGGACCAGGATGAGGGTGTCAATGCC| \\$ GAGATTACTTTCTCTTTCAGTGAAGCTAĢCCAGATCACCCAATTTGACCTGAACTCTAACACCGGGGAAATTACT GTTTTAAATACATTAGATTTTGAAGAAGTCAAAGAATATTCCATAGTTTTGGAAGCAAGGGACGGTGGAGGAATG ATTGCGCAATGCACAGTGGAGGTAGAAGTCATAGATGAAAATGACAACGCCCCAGAAGTGATATTCCAGTCTCTA  $\tt CCCAACCTAATTATGGAGGACGCCGAGCTGGGAACACATATTGCTTTGCTCAAAGTCCGTGACAAGGATTCCAGA$ CACAATGGAGAAGTGACTTGTAAATTGGAAGGTGATGTTCCATTTAAAATATTAACTTCTTCAAGAAACACGTAT AAATTAGTGACAGATGCTGTTCTAGACCGCGAGCAGAATCCAGAGTACAATATAACCGTTACGGCAACAGATCGG GGCAAGCCTCCCCTCTCCAGTTCCAGCATCACCCTGCACATTGGTGATGTAAATGACAACGCTCCGGTTTTC TCACAGTCTTCCTATATAGTCCACGTGGCCGAGAACAACCCGCCTGGAGCCTCTATTTCACAAGTCAGGGCTTCT GATCCGGACTTGGGGCCCAACGGCCAAGTCTCTTACTGCATCATGGCCAGTGACCTGGAGCAGCGGGAGCTGTCA TCCTACGTGTCCATAAGCGCGGAGAGCGGGGTGGTGTTCGCGCAGCGCGCCTTCGACCACGAGCAGCTGCGCGCCC TTCGAACTCACACTGCAGGCCCGCGACCAGGGCTCGCCAGCGCTCAGCGCGAACGTGAGCCTGCGCGTGTTAGTG GACGACGCAACGACAATGCGCCACGGGTGCTGTACCCCGGGCTGGGTCCCGACGGCTCTGCGCTCTTCGATATG GTGCCGCACGCTGCAGAGCCTGGCTACTTGGTGACCAAGGTAGTGGCGGTGGACGCAGACTCAGGACACAACGCC TGGCTGTCCTACCACGTGCTGCAGGCTAGCGAGCCCGGGCTCTTCAGCCTGGGGCTGCGCACGGGCGAAGTGCGC CCACTCTCGGCCACTGCCACGTTGCACCTGGTCTTCGCCGACAGCTTGCAGGAGGTGCTGCCGGATATCACTGAC CGCCCGACCCCTCTGACCTCCAGGCTGAGCTGCAGTTTTACCTAGTGGTGGCCTTGGCCTTGATCTCAGTGCTC CAGCCTGGTCTCTGTGTTAAATCCGAATCCGTGGTTCCCCCCAACTACAGCGAGGGGACTTTGCCTTATTCCTAC AATCTATGTGTTGCACATACAGGAAAGACGGAGTTTAATTTCCTAAAATGTAGTGAGCAGTTGAGTTCAGGACAA GACATACTTTGCGGTGATTCATCTGGGGCCTTATTTCCACTTTGTAATTCCAGTGAATTGACTTCCCATCAGCAA GCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGAC ACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCT GCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACC CTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGC AAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAGAAGGAGAAGAAG<u>TAA</u>CAT GGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCA GAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCC CAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATC AACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAG TTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTT GGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCC TTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCCATGGTACTGATGC TTGCTGGATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTT TTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGT 

## 1870/6881 FIGURE 1732B

# FIGURE 1733

MGSGAGELGRAERLPVLFLFLLSLFCPALCEQIRYRIPEEMPKGSVVGNLATDLGFSVQELPTRKLRVSSEKPYF
TVSAESGELLVSSRLDREEICGKKPACALEFEAVAENPLNFYHVNVEIEDINDHTPKFTQNSFELQISESAQPGT
RFILGSAHDADIGSNTLQNYQLSPSDHFSLINKEKSDGSKYPEMVLKTPLDREKQKSYHLTLTALDFGAPPLSST
AQIHVLVTDANDNAPVFSQDVYRVSLSENVYPGTTVLQVTATDQDEGVNAEITFSFSEASQITQFDLNSNTGEIT
VLNTLDFEEVKEYSIVLEARDGGGMIAQCTVEVEVIDENDNAPEVIFQSLPNLIMEDAELGTHIALLKVRDKDSR
HNGEVTCKLEGDVPFKILTSSRNTYKLVTDAVLDREQNPEYNITVTATDRGKPPLSSSSSITLHIGDVNDNAPVF
SQSSYIVHVAENNPPGASISQVRASDPDLGPNGQVSYCIMASDLEQRELSSYVSISAESGVVFAQRAFDHEQLRA
FELTLQARDQGSPALSANVSLRVLVDDRNDNAPRVLYPALGPDGSALFDMVPHAAEPGYLVTKVVAVDADSGHNA
WLSYHVLQASEPGLFSLGLRTGEVRTARALGDRDAVRQRLLVAVRDGGQPPLSATATLHLVFADSLQEVLPDITD
RPDPSDLQAELQFYLVVALALISVLFLVAMILAIALRLRRSSSPASWSCFQPGLCVKSESVVPPNYSEGTLPYSY
NLCVAHTGKTEFNFLKCSEQLSSGQDILCGDSSGALFPLCNSSELTSHQQAPPNTDWRFSQAQRPGTSGSQNGDD
TGIWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNATLTNAAG
KRDGKAPAGGNGNKKKSGKKEKK

## 1872/6881 FIGURE 1734A

**ATG**AAGATTCAGAAAAAGCTGACTGGCTGCAGCAGGCTGATGCTTCTGTGTCTTTCTCTGGAGCTGCTGTTGGAA GACCTAGGGCTGCAACCCCAGGAGCTGGCAGATGGCGGAGTCCGCATCGTCTCCAGAGGTAGGATGCCGCTTTTC GCTCTGAATCCTAGAAGTGGCAGCTTGATCACCGCGCGCAGGATAGACCGGGAGGAGCTCTGCGCTCAGAGCATG CCGTGTCTCGTGAGTTTTAATATCCTTGTTGAGGATAAAATGAAGCTTTTTCCTGTTGAAGTAGAAATAATTGAT CCTCATTTCTCCCTGGATGTGCAACAGGGAGCCGATGGGCCTCAACATCCAGAGATGGTGCTGCAGAGTCCCTTA GACAGAGAAGAAGAAGCTGTCCACCACCTCATCCTCACAGCTTCTGATGGGGGTGAACCAGTCCGTTCAGGGACC CTCAGAATTTACATTCAGGTGGTGGATGCAAATGACAATCCTCCAGCATTTACTCAGGCACAATACCATATAAAT GTCCCCGAAAACGTGCCGCTGGGTACTCAGCTGCTCATGGTAAATGCCACTGACCCTGATGAGGGAGCCAATGGG GAAGTAACGTACTCCTTTCACAATGTAGACCACAGAGTGGCCCAAATATTTCGTTTAGATTCTTACACAGGAGAA ATATCAAATAAAGAACCACTAGATTTCGAAGAATACAAAATGTATTCAATGGAAGTTCAAGCCCAGGATGGTGCG GGGCTCATGGCTAAAGTTAAGGTACTGATCAAAGTTTTGGATGTAAATGATAATGCCCCAGAAGTGACCATCACC TCTGTCACCACTGCAGTTCCAGAAAACTTTCCTCCTGGGACCATAATTGCTCTTATCAGTGTGCATGACCAGGAC TATTACCGTTTAGTGACTGAAAGAACACTGGACAGAGAACTTATCTCTGGGTACAACATCACAATAACAGCAATA GACCAAGGAACTCCAGCTCTATCTACTGAAACTCACATTTCACTACTAGTGACAGATATCAATGACAACTCCCCA GTCTTCCATCAGGACTCCTACTCTGCCTACATTCCCGAAAACAACCCCAGAGGAGCCTCCATCTTCTCTGTGAGG GCCCACGACTTGGACAGCAATGAGAATGCACAAATCACTTACTCCCTAATAGAGGACACTATCCAGGGGGCACCC CTATCTGCCTACCTCCCATCAACTCCGACACTGGGGTCCTGTATGCGCTGCGATCCTTCGACTATGAGCAGTTC CGGGACATGCAACTGAAAGTGATGGCGCGGGACAGTGGGGGATCCGCCCCTCAGCAGCAACGTGTCTCTCAGCCTA TTCCTGCTGGACCAGAACGACAACGCGCCCGAGATCCTGTACCCCGCCCTCCCCACAGATGGTTCTACCGGCGTG GAGCTGGCGCCCCTCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAG AACGCCTGGCTGTCCTACCGCCTGCTCAAGGCCAGCGAGCCGGGACTCTTCTCGGTGGGTCTGCACACGGGCGAG GTGCGCACGGCGCGAGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGTCTCGTGGTGGCCGTCCAGGACCACGGC CAGCCCCGCTCTCCGCCACTGTCACGCTCACCGTGGCCGTGGCCGACAGGATCTCCGACATCCTGGCCGACCTG GGCAGCCTCGAGCCCTCCGCCAAACCCAACGATTCGGACCTCACTCTGTACCTGGTGGTGGCGGCGGCGGCGGTC CAGGCTTCGGGAGGCGGCTTAGCGAGCATGCCCGGTTCGCACTTTGTGGGCGTGGACGGGGTTCGGGCTTTCCTG CAGACCTATTCCCACGAGGTCTCCCTCACTGCGGACTCGCGGAAGAGCCACCTGATTTTCCCCCAGCCCAACTAT GCGGACACCTCATCAGCCAGGAGAGCTGTGAGAAAAAGGGTTTTCTATCAGCACCCCAGTCTTTACTTGAAGAC AAAAAGGAACCATTTTCTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACC AGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATG ATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGC GCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAAT GCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCG  $\tt GGCAAGAAGGAGAAGAAGTAACATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTT$  $\verb|CTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCC| \\$ CCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGT TCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCAT CTCCTCCCCACCCCACCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTA CAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCC AAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGA GGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCT 

# FIGURE 1734B

## 1874/6881 FIGURE 1735

MKIQKKLTGCSRLMLLCLSLELLLEAGAGNIHYSVPEETDKGSFVGNIAKDLGLQPQELADGGVRIVSRGRMPLF
ALNPRSGSLITARRIDREELCAQSMPCLVSFNILVEDKMKLFPVEVEIIDINDNTPQFQLEELEFKMNEITTPGT
RVSLPFGQDLDVGMNSLQSYQLSSNPHFSLDVQQGADGPQHPEMVLQSPLDREEEAVHHLILTASDGGEPVRSGT
LRIYIQVVDANDNPPAFTQAQYHINVPENVPLGTQLLMVNATDPDEGANGEVTYSFHNVDHRVAQIFRLDSYTGE
ISNKEPLDFEEYKMYSMEVQAQDGAGLMAKVKVLIKVLDVNDNAPEVTITSVTTAVPENFPPGTIIALISVHDQD
SGDNGYTTCFIPGNLPFKLEKLVDNYYRLVTERTLDRELISGYNITITAIDQGTPALSTETHISLLVTDINDNSP
VFHQDSYSAYIPENNPRGASIFSVRAHDLDSNENAQITYSLIEDTIQGAPLSAYLSINSDTGVLYALRSFDYEQF
RDMQLKVMARDSGDPPLSSNVSLSLFLLDQNDNAPEILYPALPTDGSTGVELAPLSAEPGYLVTKVVAVDRDSGQ
NAWLSYRLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADRISDILADL
GSLEPSAKPNDSDLTLYLVVAAAAVSCVFLAFVIVLLAHRLRRWHKSRLLQASGGGLASMPGSHFVGVDGVRAFL
QTYSHEVSLTADSRKSHLIFPQPNYADTLISQESCEKKGFLSAPQSLLEDKKEPFSQQAPPNTDWRFSQAQRPGT
SGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSN
ATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

# FIGURE 1736A

ATG CCGCTCAAAGGAATCGCTCAAAGGAATCAAAGGATTGCAGCGGCTGGTCCTGCCTTTTCTTCGGG ATTCCATGGGAGGCTGGAGCCCGGCAGATCTCCTACTCAATTCCTGAGGAATTAGAGAAAGGCTCTTTCGTGGGC AACATCTCCAAGGACTTGGGTCTGGCGCCCCGGGAGCTGGCGGAGCGCGGAGTCCGCATAGTCTCCAGAGGTAGG ACGCAGCTTTTCTCTCTGAACCCGCGCAGCGGCAGCTTGATCACCGCGGGCAGGATAGACCGGGAGGAGCTCTGC GCTCAGAGCGCGCGGTGCGTGAGTTTTAATATCCTTGTGGAAGACAGGGTGAAACTTTTTGGGATAGAAATA GAAGTAACTGATATCAATGACAATGCTCCAAAATTCCAAGCAGAAAATCTAGACGTAAAAATTAATGAAAATGTC GCTGCGGGAATGCGTTTTCCTCTCCCGGAAGCTATTGATCCGGATGTGGGCCTGAACTCCCTGCAGAGCTATCAG CTCAGCCCCAATAAGCACTTCTCCCTAAGAGTTCAGAGCCGTGCCAATGGCGTCAAGTACCCGGAGCTGGTACTG GAGCACTCCCTAGATCGCGAGGAAGAGGCCATTCACCACCTGGTCCTCACCGCCTCCGACGGGGGTGACCCTCTC  ${\tt CGATCTGGCACTGTCCTTGTCAGTGTGACTGTCTTCGATGCAAATGACAACGCGCCGGTCTTCACCTTGCCAGAA}$ TACCGAGTGAGTGTTCCTGAGAATTTGCCTGTGGGCACTCAGCTGACAGTCACAGCCACCGACAGGGACGAA GGTGCCAATGGAGAAGTGACATATTCATTCCGAAAATTACCTGACACGCAATTGTTGAAGTTCCAACTAAACAAA TATACTGGAGAAATAAAAATATCAGAAAATCTAGATTATGAAGAAACCGGTTTCTATGAAATAGAAATACAAGCA GAAGATGGAGGAGCATATCTTGCAACTGCAAAAGTGTTGATTACAGTAGAAGATGTAAATGACAACAGTCCAGAG CTGACCATCACGTCTCTATTTAGTCCAGTGACTGAAGATTCACCTCTGGGAACAGTCGTAGCCCTTTTAAATGTG CATGATTTAGACTCTĠAGCAGAATGGACAGGTAACCTGTTCCATTTTGGCGTATCTACCATTTAAATTAGAAAAG TCCATTGACAGTTATTACAGATTGGTGATACACAGAGCCCTTGACAGGGAACAGGTATCCTCTTACAATATCACA  $\tt GTGACAGCCACAGATGGGGGAAGTCCTCCTCTATCAACGGAAGCTCACTTTATGCTACAAGTGGCAGATATCAAT$ GACAACCCACCTACCTTCTCAAGTCTCCTACTTTACCTATATCCCAGAGAACAACGCCAGGGGTGCCTCCATC TTCTCAGTGACAGCGCTGGACCCGGACAGCAAAGAGAATGCCCAGATTATTTACTCCCTGGCTGAAGACACCATC CAGGGGGTACCTCTGTCCTCATACATATCCATCAACTCAGACACTGGCGTCCTGTATGCACTCAGATCCTTCGAC TCGTTGAGCCTGTTTGTGCTGGACCAGAACGACAATGCGCCCGAGATCCTGTACCCCGCCCTCCCCACAGACGGT TCCACAGGCGTGGAGCTGGCGCCCCGCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGA GACTCCGGCCAGAACGCCTGGCTGTCCTACCGTCTGCTCAAGGCCAGCGAGCCGGGACTCTTCGCGGTGGGGGAG CACACGGGCGAGGTGCGCACGGCGCGAGCCCTGCTGGACAGAGACGCGCTCAAGCAAAGCCTCGTAGTGGCCGTC CAGGACCACGGCCAGCCCCTCTCCCGCCACTGTCACGCTCACCGTGGCCGTGGCCGACAGCATCCCCCAAGTC CTGGCGGACCTCGGCAGCTTCGAGTCTCCAGCTAACTCTGAAACCTCAGACCTCACTCTGTACCTGGTGGTAGCG GTGGCCGCGGTCTCCTGCGTCTTCCTGGCCTTCGTCATCGTGCTGCTGCGCACAGGCTGCGGCGCTGGCACAAG TCACGCCTGCTGCAGGCTTCAGGAGGCGGCTTGACAGGTGTGCCGGCTCGCACTTTGTGGGCGTGGACGGGGTT CGGGCTTTCCTGCAGACCTATTCCCACGAGGTCTCTCTCACCGCGGACTCGCGAAAGAGTCACCTGATCTTCCCC CAGCCCAATTATGCGGACACGCTCATCAGCCAGGAGAGCTGTGAGAAAAACGATCCTTTGTCTTTGTTAGATGAT TCGAAGTTTCCTATAGAGGATACCCCATTGGTTCCACAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCC CAGAGACCCGGCACCAGCGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAG ATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGC ACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTAC ATCCCAGGCAGCAATGCCACCTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGC AACAAGAAGAAGTCGGGCAAGAAGGAAGAAGAAGTAACATGGAGGCCAAGAGCCACAGGGCGGCCTCTCCC CAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGG CCAAGGCCATGCTCCCCTTGGGAAACAGAAACAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGA ATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTA CCATCCCATGCCTCCTCCTCCCACCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAA GTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTTGGCCTCTCCTTTGAT TCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAG 

## FIGURE 1736B

## 1877/6881 FIGURE 1737

MAAQRNRSKESKDCSGLVLLCLFFGIPWEAGARQISYSIPEELEKGSFVGNISKDLGLAPRELAERGVRIVSRGR
TQLFSLNPRSGSLITAGRIDREELCAQSARCVVSFNILVEDRVKLFGIEIEVTDINDNAPKFQAENLDVKINENV
AAGMRFPLPEAIDPDVGVNSLQSYQLSPNKHFSLRVQSRANGVKYPELVLEHSLDREEEAIHHLVLTASDGGDPL
RSGTVLVSVTVFDANDNAPVFTLPEYRVSVPENLPVGTQLLTVTATDRDEGANGEVTYSFRKLPDTQLLKFQLNK
YTGEIKISENLDYEETGFYEIEIQAEDGGAYLATAKVLITVEDVNDNSPELTITSLFSPVTEDSPLGTVVALLNV
HDLDSEQNGQVTCSILAYLPFKLEKSIDSYYRLVIHRALDREQVSSYNITVTATDGGSPPLSTEAHFMLQVADIN
DNPPTFSQVSYFTYIPENNARGASIFSVTALDPDSKENAQIIYSLAEDTIQGVPLSSYISINSDTGVLYALRSFD
YEQFHELQMQVTASDSGDPPLSSNVSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDR
DSGQNAWLSYRLLKASEPGLFAVGEHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADSIPQV
LADLGSFESPANSETSDLTLYLVVAVAAVSCVFLAFVIVLLAHRLRRWHKSRLLQASGGGLTGVSGSHFVGVDGV
RAFLQTYSHEVSLTADSRKSHLIFPQPNYADTLISQESCEKNDPLSLLDDSKFPIEDTPLVPQAPPNTDWRFSQA
QRPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVY
IPGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

## FIGURE 1738A

GCCTCTACCACACAAGCGGAATGAGATGGATACTCACAGATCCTGACACTGGAGACTTAGAAGTATTTTCCTTC GAGAAACCGCGGAATATCGGCTTAGAGCCTGCCATGCGAATCGGCTACAGCGCGGGGACCGCAGTCGGCTGCTG CTGCTGCTGTGCATTTTCCTGGGGACGCTGCGGGGGTTCCGGGCCAGATCCGATATTCGGTGCCAGAAGAG ACCGAAAAGGGCTCCTTCGTGGGCAATATCTCCAAGGACCTGGGGCTGGAGCCCCGGGAGCTGGCGAAGCGCGGA GTCCGCATCGTCTCCAGAGGGAAGACACAGCTTTTCGCTGTGAATCCGCGAAGCGGCAGCTTGATCACGGCAGGC AGGATAGACCGGGAGGAGCTCTGTGAGACGGTGTCCTCCTGTTTTTTTAAATATGGAACTTCTCGTGGAAGACACC TTGAAGATTTACGGAGTGGAGGTGGAAATAATAGATATTAATGATAACGCCCCCAGCTTCCAGGAGGACGAAGTG GAGATAAAAGTCAGTGAGCACGCAATTCCTGGGGCGCGATTTGCTCTTCCTAATGCTAGGGATCCAGATGTGGGC GTGAACTCCCTCCAGAGCTACCAGCTCAGCCCTAATAATTACTTTTCCTTGCAACTGCGGGGCAGAACGGATGGG GCCAAGAATCCAGAGCTAGTACTGGAGGGAAGCCTGGACCGAGAGAAAGAGGCTGCTCACCTCCTCACA GCTTTAGATGGAGGCGATCCCATCCGAAAGGGCGCAGTTCCCATTCGTGTGGTGGTCCTCGATGTAAATGATCAC ATCCCAATGTTTACACAGTCCGTATATCGCGTGAGTGTTCCAGAAAACATCAGCTCCGGAACTCGGGTGCTGATG GTTAATGCAACGGATCCAGACGAGGGAATCAACGGGGAAGTAATGTATTCATTTCGGAACATGGAAAGCAAGGCT TCTGAAATATTCCAATTGGATTCACAAACTGGAGAAGTTCAAGTACGGGGGTCTCTGGATTTTGAAAAATATAGA GATGTGAATGATAACGCTCCAGAAATAACTATCACCTCTTCTATTAATTCAATTCTGGAAAACTCTCCTCCAGGT ACAGTGATTGCTCTTCTAAATGTGCAAGATCAAGATTCTGGAGAAAATGGTCAAGTCTCCTGTTTTATTCCTAAC CACCTGCCTTTTAAATTAGAAAAGACTTATGGAAATTATTACAAATTGATAACAAGCAGAGTGCTGGACAGGGAG TTGGTCCAGAGCTACAATATAACGTTGACAGCCACAGACCAGGGAAGCCCGCCTTTGTCTGCAGAAACTCATGTC TGGCTGAATGTGGCAGATGACAACGATAACCCTCCCGTTTTTCCTCACTCCTCTTACTCTGCCTACATTCCCGAA AACAACCCCAGGGGTGCCTCCATCTTCTCAGTGACCGCCCTCGACCCGGACAGCAAACAGAATGCCCTGGTCACT TACTCTCTGACGGATGACACTGTCCAGGGGGTGCCTCTGTCCTCCTATGTCTCTATTAACTCCAACACTGGTGTT CTCTATGCCCTACAATCCTTCGACTATGAGCAGTTTCGAGACTTAGAACTGAGAGTGATAGCACGTGACAGCGGG GACCCGCCCTCAGCAGCAACGTGTCGCTGAGCCTGTTCGTGCTGGACCAGAACGACAATGCGCCCGAGATCCTG TACCCTGCCCTCCCACAGACGGCTCCACTGGCGTGGAGCTGGCGCCCCGCTCTGCGGAACCTGGCTACCTGGTG ACCAAGGTGGTTGCGGTGGACAAAGATTCAGGCCAGAACGCCTGGCTGTCCTATCGCCTGCTTAAGGCCAGCGAG  $\tt CCGGGACTCTTCGCGGTGGGGGAGCACACGGGCGAGGTGCGTACAGCGCGGGCACTGCTGGACAGAGACGCGCTC$ AAGCAGAGCCTCGTGGTGGCCGTCCAGGACCACGGCCAGCCCCTCTCTCGGCCACCGTCACGCTCACCGTGGCT GTGGCCGACAGCATCCCCGAAGTCCTGGCGGACCTCGGCAGCCTCGAGTCTCTGGCTAACTCTGAAACCTCAGAC CTCTCGCTGTACTTGGTGGTGGCGGTGGCCGCAGTCTCCTGCATCTTCCTGGTCTTTGTCATCGTGCTGCTGCCA CTCAGGCTGTGGCGCTGGCATAAGTCACGCCTGCTGCAGGCTTCTGAAGGCGGGTTGGCAGGTATGCCCACGTCA CATTTTGTAGGCGTGGACGGGGTACAGGCTTTCCTGCAAACCTATTCCCACGAGGTCTCTCATTGCGGACTCG CAGAAGAGTCACCTGATTTTCCCCCAGCCCAACTATGGGGACACGCTCATCAGCCAGGAGAGAGCTGTGAGAAAAGC GAGCCACTCTTGATAGCTGAAGACTCAGCTATCATTTTAGGCAAATGTGACCCGACAAGTAATCAGCAAGCCCCG CCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGC ACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGAT GGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAG CACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGCAAGCGG GATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGACGTCGGGCAAGAAGGAGAAGAAGTAACATGGAGGC CAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAACAAGTGCCCAGTCA GCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGC TGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAGCTGAAC TTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGG GCATCATGACCTCTTGGCCTCTCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACC

## 1879/6881 FIGURE 1738B

GATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTTTTCATT GTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTCCAAG TCAAGTTATCAAGGCCTTGGAGGAGGCTCTGTATGTCCTCAGGGGACTGACAACATCCTCCAGATTCCAGCCATA CAGGACCAATGGATTAAACTGGCATTTCAGTCCAAGGAAGCTCGAAGCAGGTTTAGGACCAGGTCCCCTTGAGAG GTCAGAGGGGCCTCTGTGGGTGCTGGGTACTCCAGAGGTGCCACTGGTGGAAGGGTCAGCGGAGCCCCAGCAGGA AGGGTGGGCCAGCCAGCCATTCTTAGTCCCTGGGTTGGGGAGGCAGGGAGCTAGGGCAGGACCAAATGAACAG AAAGTCTCAGCCCAGGATGGGGCTTCTTCAACAGGGCCCCTGCCCTGAAGCCTCAGTCCTTCACCTTGCCAG GTGCCGTTTCTCTTCCGTGAAGGCCACTGCCCAGGTCCCCAGTGCGCCCCTAGTGGCCATAGCCTGGTTAAAGT TCCCCAGTGCCTCCTTGTGCATAGACCTTCTTCTCCCACCCCTTCTGCCCCTGGGTCCCCGGCCATCCAGCGGG GCTGCCAGAGACCCCAGACCTGCCCTTACAGTAGTGTAGCGCCCCCTCCTTTTCGGCTGGTGTAGAATAGCC AGTAGTGTAGTGCGGTGTGCTTTTACGTGATGGCGGGTGGGCAGCGGCGGCGGGCTCCGCGCAGCCGTCTGTCC TTGATCTGCCCGCGGCGGCCCGTGTTGTGTTTTTGTGCTGTGTCCACGCGCTAAGGCGACCCCCTCCCCGTACTG ACTTCTCCTATAAGCGCTTCTCTTCGCATAGTCACGTAGCTCCCACCCCACCCTCTTCCTGTGTCTCACGCAAGT TTTATACTCTAATATTTATATGGCTTTTTTTCTTCGACAAAAAAATAATAAAACGTTTCTTCTGAAAAGCTG

### 1880/6881 FIGURE 1739

MANRLQRGDRSRLLLLLCIFLGTLRGFRARQIRYSVPEETEKGSFVGNISKDLGLEPRELAKRGVRIVSRGKTQL
FAVNPRSGSLITAGRIDREELCETVSSCFLNMELLVEDTLKIYGVEVEIIDINDNAPSFQEDEVEIKVSEHAIPG
ARFALPNARDPDVGVNSLQSYQLSPNNYFSLQLRGRTDGAKNPELVLEGSLDREKEAAHLLLLTALDGGDPIRKG
AVPIRVVVLDVNDHIPMFTQSVYRVSVPENISSGTRVLMVNATDPDEGINGEVMYSFRNMESKASEIFQLDSQTG
EVQVRGSLDFEKYRFYEMEIQGQDGGGLFTTTTMLITVVDVNDNAPEITITSSINSILENSPPGTVIALLNVQDQ
DSGENGQVSCFIPNHLPFKLEKTYGNYYKLITSRVLDRELVQSYNITLTATDQGSPPLSAETHVWLNVADDNDNP
PVFPHSSYSAYIPENNPRGASIFSVTALDPDSKQNALVTYSLTDDTVQGVPLSSYVSINSNTGVLYALQSFDYEQ
FRDLELRVIARDSGDPPLSSNVSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDKDSG
QNAWLSYRLLKASEPGLFAVGEHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADSIPEVLAD
LGSLESLANSETSDLSLYLVVAVAAVSCIFLVFVIVLLALRLWRWHKSRLLQASEGGLAGMPTSHFVGVDGVQAF
LQTYSHEVSLIADSQKSHLIFPQPNYGDTLISQESCEKSEPLLIAEDSAIILGKCDPTSNQQAPPNTDWRFSQAQ
RPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYI
PGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

## FIGURE 1740A

AAGGGGGTGGAGGTTTGGCCCTAAAGCTTCAGGACACCAAAGAAATTCAGTCGAACAGCCCACCAGTTCTCTCCA TAGGGACCTGGGTCCCGTGAATGCTGGTTATCTCACACCCTGAGGAATAAAGATTGGAATCCGCACTGGATGCTG GAAGTTGACTCGGAGAAAATTGCGACAGGAGGGAAATGGCGGCTCTGCAAAAGTTGCCACACTGCAGAAAGCTGG TCCTGCTGTGCTTCCTTTTGGCGACCCTGTGGGAGGCCAGGGCCGGCAGATTCGCTATTCTGTGCGGGAAGAGA TCGACAGAGGCTCCTTCGTAGGCAACATCGCCAAGGACTTGGGTTTGGAGCCCCTGGCACTGGCAGAGCAGGGAG TCCGCATCGTCTCCAGAGGTAGGTCCCAGCTCTTTGCTCTGAACCCGCGAAGCGGCAGCTTGGTCACTGCGAACA TGACTATTTATTCAGTAGAGGTGGAAATAACAGATATTAACGATAATGCCCCTCGCTTTGGAGTAGAGGAACTGG AGCTAAAAATCAGTGAAACCACTACGCCAGGATTCCGGATTCCTCTTAAGAATGCGCATGATGCAGACGTAGGTG AGAACGCCCTTCAGAAGTACGCACTCAACCCAAATGACCACTTCTCCCTGGACGTGCGAAGGGGAGCTGATGGGA ACAAGTACCCAGAACTGGTGCTGGAGCGCTCTCTGGACCGCGAGGAAGAGGCTGTTCACCACCTCGTTCTCGTGG CTTCTGATGGGGGTGACCCAGTGCTATCTGGCACCTCCCGCATCTGCGTGAAGGTCCTGGATGCGAACGACAATG CGCCTGTTTTTACACAGCCCGAGTACCGCATAAGCATTCCGGAGAATACGCTCGTGGGCACCCGGATACTCACGG TGACCGCCACTGACGCAGATGAGGGCTACTACGCTCAAGTGGTATATTTTCTAGAGAAAAGCCCTGGAGAAACCT CAGAGGTATTTGAGCTTAAGTCAACATCTGGAGAACTGACAATCATAAAAGATCTAGATTATGAGGATGCTACAT TCCATGAAATTGATATTGAAGCTCAGGATGGTCCGGGCCTTCTAACCAGAGCGAAGGTTATCGTCACGGTTCTGG ATGTGAATGACAATGCCCCAGAATTTTACATGACATCTGCTACTAGCTCAGTTTCTGAAGACTCTCTTCCAGGAA CCATAATTGGGCTTTTTAATGTACATGATAGAGACTCTGGGCAGAACGCATTCACCACCTGTTCACTCCCCGAGG ATCTTCCTTTTAAGTTAGAAAAGTCAGTAGACAATTACTACCGACTGGTTACAACCAGAGCCCTTGACAGGGAAC TGCTCCAGGTGGCAGACATCAACGACAACGCCCCCCTTCTCCCGCACATCCTACTCCACCTACATTCCCGAAA ACAACCCCAGAGGAGCCTCTGTCTTCTCAGTGACGGCCCATGACCCCGACAGCAACGACAATGCTCATGTAACTT ACTCTTTCGCGGAGGACACTGTTCAGGGGGCACCCTTATCCTCTTACATCTCTATCAACTCCGACACTGGAGTAC TCTATGCACTGCGCTCCTTTGATTATGAGCAGTTGCGAGACTTGCAAGTGTGGGTGATAGCGCGGGACAGCGGGA ACCCTCCACTCAGTAGCAATGTATCATTAAGCCTGTTCGTGCTGGACCAGAACGACAACGCCCCGAGATCCTGT ACCCTGCCTTCCCCACAGACGGTTCCACTGGCGTGGAGCTGGCGCCCCGCTCCGCAGAGCCCGGCTACCTGGTGA CCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAGAACGCCTGGCTGTCTTACCACCTGCTCAAGGCCAGCGAGC CGGGACTCTTCTCGGTGGGTCTGCACACGGGCGAGGTGCGCACGCGCGAGCCCTGCTGGACAGAGACGCGCTCA AGCAGAGCCTCGTGGTGGCCATCCAGGACCACGGCCAGCCCCTCTCTCCGCCACTGTCACGCTCACCGTGGCCG TGGCCGACAGGATCCCCGACATCCTGGCCGACCTGGGCAGCCTCGAGCCCTCCGCCATACCCAACGATTCGGACC TCACTCTGTACCTGGTGGTGGCGGTGGCCGCGTCTCCTGCGTCTTCCTGGCCTTCGTCATCGTGTTGCTGGCGC ACAGGCTGCGGCGCTGGCACAAGTCACGCCTGCTGCAGGCTTCAGGAGGCAGCTTGACAGGCATGCAGAGCTCGC ACTTTGTGGGCGTGGACGGGTTCGGGCTTTCCTGCAGACCTATTCCCACGAGGTCTCCCTCACTGCGGACTCGC GGAAGAGCCACCTGATTTTCCCCCAGCCCAACTATGCGGACACGCTCATCAGCCAGGAGAGAGCTGTGAGAAAAAGG CGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGC CCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCT CCACCCTGGGAGGGGGTGCCGCCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGC CCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACCTGACCAACGCAGCTGGCAAGCGGGATGGCA AGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCT AACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCCCAGTCAGCACCTA CCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCC ATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAGCTGAACTCCTCCA AGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCAT GACCTCTTGGCCTCTCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCC 

## 1882/6881 FIGURE 1740B

GGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGAC GTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTCCAAGACAGTAT ATCAAGGCCTTGGAGGAGGCTCTGTATGTCCTCAGGGGACTGACAACATCCTCCAGATTCCAGCCATAAACCAAT ANTGGATTAAACTGGCATTTCAGTCCAAGGAAGCTCGAAGCAGGTTTAGGACCAGGTCCCCTTGAGAGGTCAGAG  ${\tt GGGCCTCTGTGGGTGCTGGGTACTCCAGAGGTGCCACTGGTGGAAGGGTCAGCGGAGCCCCAGCAGGAAGGGTGG}$ GCCAGCCAGGCATTCTTAGTCCCTGGGTTGGGGAGGCAGGGAGCTAGGGCAGGACCAAATGAACAGAAAGTCT  ${\tt CAGCCCAGGATGGGGCTTCTTCAACAGGGCCCCTGCCCTCCTGAAGCCTCAGTCCTTCACCTTGCCAGGTGCCGT}$  ${\tt TGCCTCCTTGTGCATAGACCTTCTTCCCACCCCCTTCTGCCCCTGGGTCCCCGGCCATCCAGCGGGGCTGCCA}$ GAGAACCCCAGACCTGCCTTACAGTAGTGTAGCGCCCCCTCCTTTTCGGCTGTGTAGAATAGCCAGTAGTG  ${\tt GCCCGCGGCCCGTGTTGTGTTTTTGTGCTGTGTCCACGCGCTAAGGCGACCCCCTCCCCGTACTGACTTCTC}$  $\verb|CTATAAGCGCTTCTCTCGCATAGTCACGTAGCTCCCACCCCACCCTCTTCCTGTGTCTCACGCAAGTTTTATAC| \\$ TCTAATATTTATATGGCTTTTTTTCTTCGACAAAAAAATAATAAAACGTTTCTTCTGAAAAGCTG

## 1883/6881 FIGURE 1741

MAALQKLPHCRKLVLLCFLLATLWEARAGQIRYSVREEIDRGSFVGNIAKDLGLEPLALAEQGVRIVSRGRSQLF
ALNPRSGSLVTANRIDREELCAQSAPCLLNFNILLEDKLTIYSVEVEITDINDNAPRFGVEELELKISETTTPGF
RIPLKNAHDADVGENALQKYALNPNDHFSLDVRRGADGNKYPELVLERSLDREEEAVHHLVLVASDGGDPVLSGT
SRICVKVLDANDNAPVFTQPEYRISIPENTLVGTRILTVTATDADEGYYAQVVYFLEKSPGETSEVFELKSTSGE
LTIIKDLDYEDATFHEIDIEAQDGPGLLTRAKVIVTVLDVNDNAPEFYMTSATSSVSEDSLPGTIIGLFNVHDRD
SGQNAFTTCSLPEDLPFKLEKSVDNYYRLVTTRALDREQFSFYNITLTAKDGGNPSLSTDAHILLQVADINDNAP
AFSRTSYSTYIPENNPRGASVFSVTAHDPDSNDNAHVTYSFAEDTVQGAPLSSYISINSDTGVLYALRSFDYEQL
RDLQVWVIARDSGNPPLSSNVSLSLFVLDQNDNAPEILYPAFPTDGSTGVELAPRSAEPGYLVTKVVAVDRDSGQ
NAWLSYHLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAIQDHGQPPLSATVTLTVAVADRIPDILADL
GSLEPSAIPNDSDLTLYLVVAVAAVSCVFLAFVIVLLAHRLRRWHKSRLLQASGGSLTGMQSSHFVGVDGVRAFL
QTYSHEVSLTADSRKSHLIFPQPNYADTLISQESCEKKDFLSAPQSLLEEEREETFSQQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1884/6881 FIGURE 1742A

**ATGACCAATTGCCTGAGTTTCCGAAATGGCAGAGGACTGGCCCTGCTGTGCGCCCTCCTGGGGACGCTGTGCGAA** ACAGGATCCGGTCAGATCCGCTACTCGGTGTCTGAGGAGCTAGATAAAGGTTCCTTCGTGGGCAACATCGCTAAC GACCTGGGGCTAGAGCCCCGGGAGCTGGCGGAGCGCGGAGTCCGCATCGTCTCCAGAGGTAGGACGCAGCTTTTC TCTCTGAATCCGCAAAGCGGCAGCTTGGTCACCGCGGAGAGGATAGACCGGGAGGAGCTCTGCGCTCAGATCCCG CTGTGTCTGGTAAAAATTAACATTCTGGTTGAGGATAAATTGAAAATTTTTGAAGTAGAAATAGAAATTAAAGAT ATTAATGATAATGCTCCTAATTTCCCAACAGAGGAATTGGAAATAAAAATTGGTGAACTAACGGTTCCTGGAACC CGATTTCCAATTAAAACTGCTTTTGACCCAGATGTAGGCATTAACTCCCTGCAGAACTACAAGCTTAGCCCCAAT GACTACTTCTCTCTGGCTGTGAATAGCGTCTCTGAGGGGGCCAAGTATCCAGAGCTGGTGCTGGAGCGGGCCCTG GACCGTGAGAAAAAAGAAATTCACCAGCTTGTCCTGGTTGCCTCTGATGGTGGCGACCCTGTCCACTCTGGCAAC TTGCACATCCAAGTGATAGTCCTGGATGCAAATGACAACCCACCAATGTTTACTCAGCCTGAGTACCGTGTGAGT GTTTGGGAGAACGTGCCTGTGGGTACCCGGCTGCTCACGGTGAATGCCACTGACCCTGACGAGGGATTCAATGCT GTATCAATATTAAAAAGTCTAGATTATGAGGATGCCATGTTCTATGAAATTAAAATTGAAGCACAGGATGGACCA GGTCTTCTTTCAAGAGCCAAGATTCTAGTCACGGTTCTGGATGTGAATGACAATGCTCCAGAAATTACAATCACG TCTCTCACAAGCTCAGTCCCAGAAGAGGGCACCGTTGGAAGAGAAATTGCTCTTATCGACGTGCATGACCGAGAT  ${\tt TCTGGGCAGATGGGCAGGTTGAAGTTTTTGTCCTGGGAAATCTGCCATTTAAGTTAGAAAAATCAATAGATCAA}$ TATTACCGCTTAGTGACGGCCACATCCCTGGACCGCGAACAATATCAGAATATAACATTAGTCTGAGAGCCTCA ACCTTCCCTCATTTATCCTACTCCGCCTACATTCCAGAAAACAACCCCAGAGGAGCCTCCATCTTCTCAGTGACA GCCCAGGACCCAGATAGCAACAACAACGCCCGCATCACTTATGCATTGACCGAGGACACTCTCCAGGGGGCCCCC CTGTCCTCCTTCGTCTATCAACTCCAACACTGGCGTCCTATACGCGCTGAGATCCTTCGACTACGAGCAATTT AGAGACTTAAAGCTACTGGTGACAGCCAGCGACAGCGGGAACCCTCCACTCAGCAGCAACGTGTCGCTGAACCTG TTCGTGCTGGACCAGAACGACAACGCCCCGAGATCCTGTACCCCGCCTCCCCACAGACGGTTCCACTGGCGTG GAGCTGGCGCCTCGCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAG AACGCCTGGCTGTCCTACCGCCTGCTCAAGGCCAGCGAGCCGGGACTCTTCTCGGTGGGTCTGCACACGGGCGAG GTGCGCACGGCGCGAGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGCCTCGTGGTGGCCGTCCAGGACCACGGC CAGCCCCTCTCTCCGCCACTGTCACGCTCACCGTGGCCGTGGCCGACAGGATCCCCGACATCCTGGCCGACCTG GGCAGCCTCGAGCCCTCCGCCAAACCCAACGATTCGGACCTCACTCTGTACCTGGTGGTGGCGGTGGCCGCGGTC TCCTGCGTCTTCCTGGCCTTCGTCATCGTGCTGCTGCGCGCTCAGGCTGCGCGCCTGGCACAAGTCACGCCTGCTG CAGGCTTCGGGAGGCGGCTTGGCGAGTACGCCCGGCTCGCACTTTGTGGGCGCGGACGGGGTTCGGGCTTTCCTG CAGACCTATTCCCACGAGGTCTCCCTCACTGCGGACTCGCGGAAGAGCCACCTGATTTTCCCCCAGCCCAACTAT GCGGACACGCTCATCAGCCAGGAGAGCTGTGAGAAAAGCGAGCCTCTTCTGATAACTCAGGATTTACTTGAAATG AAAGGAGATTCCAACCTACTTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGC ACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCC ATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTG AGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGC TCGGGCAAGAAGAAGAAG<u>TAA</u>CATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAG CTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGC TCCCCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTTCCCCCCCAGGGGGTTGAATATGCAAAAGC AGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAAC TCCCTCCTCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAAC CTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCC CCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTTGGAGGACA CCTGGGGACCAGTCTTCTGTTTTGTTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCT 

## 1885/6881 FIGURE 1742B

# FIGURE 1743

MTNCLSFRNGRGLALLCALLGTLCETGSGQIRYSVSEELDKGSFVGNIANDLGLEPRELAERGVRIVSRGRTQLF
SLNPQSGSLVTAERIDREELCAQIPLCLVKINILVEDKLKIFEVEIEIKDINDNAPNFPTEELEIKIGELTVPGT
RFPIKTAFDPDVGINSLQNYKLSPNDYFSLAVNSVSEGAKYPELVLERALDREKKEIHQLVLVASDGGDPVHSGN
LHIQVIVLDANDNPPMFTQPEYRVSVWENVPVGTRLLTVNATDPDEGFNAQVSYILDKMPGKIAEIFHLNSVSGE
VSILKSLDYEDAMFYEIKIEAQDGPGLLSRAKILVTVLDVNDNAPEITITSLTSSVPEEGTVGREIALIDVHDRD
SGQNGQVEVFVLGNLPFKLEKSIDQYYRLVTATSLDREQISEYNISLRASDGGSPPLSTETHITLHVIDINDNPP
TFPHLSYSAYIPENNPRGASIFSVTAQDPDSNNNARITYALTEDTLQGAPLSSFVSINSNTGVLYALRSFDYEQF
RDLKLLVTASDSGNPPLSSNVSLNLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDRDSGQ
NAWLSYRLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADRIPDILADL
GSLEPSAKPNDSDLTLYLVVAVAAVSCVFLAFVIVLLALRLRRWHKSRLLQASGGGLASTPGSHFVGADGVRAFL
QTYSHEVSLTADSRKSHLIFPQPNYADTLISQESCEKSEPLLITQDLLEMKGDSNLLQQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1887/6881 FIGURE 1744A

ATGCCGGCGCCTCCTGCTCGCCCAGACCACACCCGGCTGCTCCAGATCTGCCTTCTCCTGGGGGGTTCTGGTGGAA ATCAGGGCCGAACAGATTCTCTACTCGGTGTTTGAGGAGCAGGAAGAAGGCTCAGTGGTGGGCAACATCGCCAAG GACCTGGGGTTGGCGCCCCGGGAGCTGGCGGAGCGCGGAGTCCGCATCGTCTCCAGAGGTAGGACGCAGCTTTTC GCCCTGAACCCGCGCAGCGGCACCTTGGTCACCGCGGGTAGGATAGACAGGGAGGAGCTCTGCGACAGATCTCCA AACTGTGTGACAAACCTGGAGATTCTTCTAGAAGATACAGTGAAGATTTTGCGGGTAGAGGTGGAAATAATCGAT GTTAATGATAACCCACCCAGTTTTGGGACAGAACAGAGGGAAATAAAAGTTGCTGAAAAATGAAAATCCTGGGGCA AGATTTCCTCTTCCTGAAGCTTTTGATCCGGATGTAGGTGTAAACTCCCTGCAGGGTTACCAGCTCAAAC GGTTACTTTTCCCTGGACGTGCAAAGTGGGGCCGATGGGATTAAGTACCCAGAGCTGGTGCTGGAACGCGCTCTA GATCGCGAGGAAGAGGCGGTTCACCACCTCGTTCTCACGGCCTTCGATGGAGGTGACCCGGTTCGCTCTGGCACT GCCAGGATTCTCATAATACTTGTGGATACCAACGATAATGCTCCCGTGTTCACTCAGCCCGAGTACCACGTAAGT GTTCGTGAGAACGTTCCTGTAGGCACTCGGCTACTCACCGTAAAAGCCACTGATCCAGATGAAGGAGCCAATGGA GACGTGACGTATTCTTTCCGGAAAGTAAGAGACAAAATATCACAGCTATTTCAGTTGAATTCTCTGAGTGGGGAT ATAACAATATTGGGGGGTCTAGATTATGAGGACTCTGGATTCTATGACATAGATGTAGAAGCCCATGATGGGCCT GGTCTCCGAGCTAGAAGCAAGGTACTGGTGACAGTTCTGGATGAAAATGACAACGCACCAGAAGTCACAGTTACA TCTCTCACCAGCTCAGGCAATCTTCTTCCCCGGGTACAGTAATTGCACTTTTCAACGTGCATGACAGTGAC TCAGGAGGAAATGGCCTAGTCACATGTTCTATTCCAGATAATCTGCCATTCACACTTGAAAAAGACCTATGGAAAT TATTATCGGTTGTTGACACACAGAACACTGGACAGGGAAGAAGTCTCAGAATATAACATCACTGTAACTGCCACT ACTTTCCCTCATGCTTCCTACTCTGCTTACATTCCTGAAAACAACCCCAGAGGAGCCTCCATCTTATCTATGACT GCTCAAGACCCTGACAGTGGTGACAATGCCCGAATCACTTACTCCCTGGCCGAAGACACCTTCCAGGGTGCACCT CTGTCCTCCTATGTCTCCATCAACTCCAATACAGGGATCCTATATGCTCTTTGCTCCTTCGACTATGAGCAGTTT AGAGACCTGCAGCTGATGACAGCCAGTGACAGTGGAGACCCTCCACTCAGCAGCAATGTGTCACTGAGCCTC TTTGTGCTGGACCAGAACGACAATGTCCCTGAGATCCTGTACCCCACCTTCCCTACTGATGGCTCCACTGGTGTG GAGCTGGCACCCCGCTCCGCAGATTCCGGCTACCTGGTGACCAAAGTGGTGGCAGTGGACAGAGACTCAGGTCAG AATGCCTGGCTGTCCTACAGCCTACTCAAGTCCAGCGAGCCGGGACTATTTGCAGTGGGGCTGCACACAGGCGAG GTGCGCACCGCACGGGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGGCTTGTAGTGGTCGTCCAGGACCATGGC CAGCCCCTCTCTCGGCCACCGTCACACTCACTGTGGCTGTGGCCGACAGCATCCCAGATGTCCTGGCTGACTTG GGCAGCCTCAAGCCTTCAGCAGACCCAGACGACTCGGGCCTCACACTCTATCTCGTGGTGGCAGTGGCCGCTGTC TCCTGCGTCTTCCTGGCTTTTGTCACGGTGCTGCTAGCACTCAAGCTGAGACGCTGGCACAAGTCACGCCTGCTT  ${\tt CACGCTGAAGGCAGGTTGGCAGGTGTGCCTGCCTCGCACTTTGTGGGCGTGGACGGGGTTCGGGCTTTCCTG}$  ${\tt CAGACCTATTCCCACGAGGTCTCCCTCACCGCGGACTCGCGGAAGAGTCACCTGATCTTCTCCCAACCCAGCTAT}$ GCAGACACGCTCATCAGCCGGGAGAGTTGTGAGAAAAGCGAGCCTCTTCTGATAACTCAGGATTTACTTGAAACA AAAGGAGACCCTAATCTTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACC AGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATG ATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGC GCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAAT GCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCG  ${\tt GGCAAGAAGAAGAAGAAGAAGACCAGGCCAAGAGCCAAGAGCCACGGCCCAACCAGCCCAGCTT}$ CCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGT TCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCAT  $\tt CTCCTCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTA$ CAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCC AAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGA GGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCT 

#### 1888/6881 FIGURE 1744B

#### 1889/6881 FIGURE 1745

MAAPPARPDHTRLLQICLLLGVLVEIRAEQILYSVFEEQEEGSVVGNIAKDLGLAPRELAERGVRIVSRGRTQLF
ALNPRSGTLVTAGRIDREELCDRSPNCVTNLEILLEDTVKILRVEVEIIDVNDNPPSFGTEQREIKVAENENPGA
RFPLPEAFDPDVGVNSLQGYQLNSNGYFSLDVQSGADGIKYPELVLERALDREEEAVHHLVLTAFDGGDPVRSGT
ARILIILVDTNDNAPVFTQPEYHVSVRENVPVGTRLLTVKATDPDEGANGDVTYSFRKVRDKISQLFQLNSLSGD
ITILGGLDYEDSGFYDIDVEAHDGPGLRARSKVLVTVLDENDNAPEVTVTSLTSSVQESSSPGTVIALFNVHDSD
SGGNGLVTCSIPDNLPFTLEKTYGNYYRLLTHRTLDREEVSEYNITVTATDQGTPPLSTETHISLQVMDINDNPP
TFPHASYSAYIPENNPRGASILSMTAQDPDSGDNARITYSLAEDTFQGAPLSSYVSINSNTGILYALCSFDYEQF
RDLQLLMTASDSGDPPLSSNVSLSLFVLDQNDNVPEILYPTFPTDGSTGVELAPRSADSGYLVTKVVAVDRDSGQ
NAWLSYSLLKSSEPGLFAVGLHTGEVRTARALLDRDALKQRLVVVVQDHGQPPLSATVTLTVAVADSIPDVLADL
GSLKPSADPDDSGLTLYLVVAVAAVSCVFLAFVTVLLALKLRRWHKSRLLHAEGSRLAGVPASHFVGVDGVRAFL
QTYSHEVSLTADSRKSHLIFSQPSYADTLISRESCEKSEPLLITQDLLETKGDPNLQQAPPNTDWRFSQAQRPGT
SGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSN
ATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1890/6881 FIGURE 1746A

**ATG**GCGAGTCCACCTAGGGGCTGGGGCTGCGGAGAGCTGCTGCTGCCCTTCATGCTCCTGGGGACGCTGTGCGAG CCAGGATCCGGCAGATCCGCTACTCGATGCCGGAGGAGCTGGACAAAGGCTCCTTCGTCGGCAACATAGCCAAG GCCCTGAACCCGCGAAGCGGCAGCTTGGTCACCGCGGGCAGGATAGACCGGGAGGAGCTCTGCGCTCAGAGCCCA  $\tt CTGTGTGTGGTGAACTTTAACATCTTGGTTGAGAACAAAATGAAAATTTATGGAGTAGAAGTAGAAATAATCGAT$ ATTAATGATAACTTCCCGCGTTTCCGGGATGAAGAGTTAAAAGTTAATGAAAATGCGGCTGCAGGGACA  $\tt CGGTTAGTGCTTCCCTTCGCGCGGGATGCGGATGTGGGTGTGAACTCTCTCCGGAGTTACCAGCTCAGCTCCAAT$ CTGCACTTCTCTCTGGATGTGGTAAGCGGAACTGATGGACAAAAGTATCCGGAGCTGGTGTTGGAACAGCCCCTA GACCGCGAGAAAGAGACTGTTCACGACCTCCTCACAGCTTTAGATGGCGGAGACCCGGTACTCTCCGGCACC ACGCACATCCGTGTTACGGTCCTCGACGCAAACGACAATGCGCCCCTGTTCACCCCATCCGAGTACAGCGTGAGT GTTCCAGAGAACATACCTGTGGGCACTCGGCTGCTCATGCTAACCGCCACGGATCCAGATGAGGGAATAAACGGG AAATTGACCTACTCTTTTCGCAATGAAGAAGAAAAATTTCGGAGACTTTCCAACTTGATTCCAACCTGGGGGAA ATCTCAACTCTACAATCACTGGACTATGAAGAATCCAGATTCTACCTCATGGAAGTGGTAGCTCAGGATGGAGGC GCTCTTGTTGCCAGCGCTAAGGTGGTGGTCACAGTACAGGACGTGAATGACAATGCCCCCGAAGTGATCCTCACC TCTCTGACCAGTTCGATCTCTGAAGACTGTCTTCCCGGAACTGTAATCGCGCTGTTTAGCGTACATGATGGTGAT TCTGGAGAAAATGGTGAGATTGCATGCTCTATTCCTAGGAATTTGCCTTTTAAATTGGAGAAGTCAGTTGATAAT TACTATCACCTATTAACAACTAGGGACCTGGACAGAGAAGAGACTTCAGATTATAATATCACTTTAACCGTCATG AATTTCCCTCAAGCCTCCTACTCCACCTCTGTCACAGAAAACAATCCCAGAGGTGTCTCTATCTTCTGTGACA GCCCATGACCCCGACAGCGCGACAACGCTCGAGTCACCTACTCCCTGGCTGAAGACACATTTCAGGGGGCGCCC TTGTCCTCCTATGTATCCATTAACTCTGACACCGGTGTCCTGTATGCTCTGAGATCCTTCGACTATGAGCAGTTG AGAGACCTACAGTTGTGGGTGACAGCCAGCGACAGTGGGAACCCTCCACTTAGCAGCAACGTGTCGCTGAGCCTG TTTGTGCTGGACCAGAACGACAATACGCCTGAGATCCTGTACCCCGCCCTCCCCACAGACGGTTCCACGGGCGTG GAGCTGGCCCCTCGCTCCGCAGAACCTGGCTACCTGGTGACCAAGGTGGTAGCGGTGGACAAAGATTCAGGCCAG AACGCCTGGCTGTCCTACCGCCTGCTTAAGGCCAGCGAGCCAGGACTCTTTGCGGTTGGGCTGCACACGGGCGAG GTGCGCACAGCGCGAGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGCCTCGTGGTGGCCGTCGAAGACCATGGC CAGCCCCTCTGTCAGCCACCTTCACGGTCACCGTTGCCGTGGCCGACAGGATCCCTGACATCCTGGCTGACCTA GGCAGTATCAAGACCCCCATTGACCCTGAGGATCTGGACCTCACACTCTATCTTGTGGTGGCAGTGGCTGCAGTC TCCTGCGTCTTCCTGGCCTTCGTCATCGTGCTGCTGGTGCTCAGACTGAGGCGCTGGCACAAGTCACGCCTGCTT CAGGCTGAAGGCAGCAGGTTGGCGGGTGTGCCCGCCTCGCACTTTGTGGGCGTGGATGGGGTTCGGGCTTTCCTG  $\tt CAGACCTATTCCCACGAGGTCTCCCTCACCGCGGACTCGAGGAAGAGTCACCTGATCTTTCCCCAGCCCAACTAC$ GCAGACACGCTCCTTAGTGAAGAGAGCTGTGAGAAAAGCGAGCCTCTTCTGATGTCTGATAAGGTAGATGCAAAC AAAGAAGAACGGCGAGTTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACC AGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATG ATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGC GCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAAT GCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCG GGCAAGAAGGAGAAGAAGTAACATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTT CTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCC CCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGT TCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCAT CTCCTCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTA CAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCC AAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGA GGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCT 

## 1891/6881 FIGURE 1746B

#### 1892/6881 FIGURE 1747

MASPPRGWGCGELLLPFMLLGTLCEPGSQIRYSMPEELDKGSFVGNIAKDLGLEPQELAERGVRIVSRGRTQLF
ALNPRSGSLVTAGRIDREELCAQSPLCVVNFNILVENKMKIYGVEVEIIDINDNFPRFRDEELKVKVNENAAAGT
RLVLPFARDADVGVNSLRSYQLSSNLHFSLDVVSGTDGQKYPELVLEQPLDREKETVHDLLLTALDGGDPVLSGT
THIRVTVLDANDNAPLFTPSEYSVSVPENIPVGTRLLMLTATDPDEGINGKLTYSFRNEEEKISETFQLDSNLGE
ISTLQSLDYEESRFYLMEVVAQDGGALVASAKVVVTVQDVNDNAPEVILTSLTSSISEDCLPGTVIALFSVHDGD
SGENGEIACSIPRNLPFKLEKSVDNYYHLLTTRDLDREETSDYNITLTVMDHGTPPLSTESHIPLKVADVNDNPP
NFPQASYSTSVTENNPRGVSIFSVTAHDPDSGDNARVTYSLAEDTFQGAPLSSYVSINSDTGVLYALRSFDYEQL
RDLQLWVTASDSGNPPLSSNVSLSLFVLDQNDNTPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDKDSGQ
NAWLSYRLLKASEPGLFAVGLHTGEVRTARALLDRDALKQSLVVAVEDHGQPPLSATFTVTVAVADRIPDILADL
GSIKTPIDPEDLDLTLYLVVAVAAVSCVFLAFVIVLLVLRLRRWHKSRLLQAEGSRLAGVPASHFVGVDGVRAFL
QTYSHEVSLTADSRKSHLIFPQPNYADTLLSEESCEKSEPLLMSDKVDANKEERRVQQAPPNTDWRFSQAQRPGT
SGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSN
ATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1893/6881 FIGURE 1748A

**ATG**CGCCTCCGCAGAGGCATCCGCAGCGCAGCGAGCAGGTCCTGCTCCTCACGCTCCTGGGGACGCTGTGGGGG GCCGCGGCAGCGCAGATCCGCTACTCTATTCCCGAGGAGCTGGAGAAAGGCTCCTTCGTAGGCAACATCGTCAAG GATCTGGGACTGGAGCCCCAGGAGTTGGCGGAGCACGGAGTCCGCATCGTCTCCAGAGGTAGGATGCAGCTTTTC TCTCTGAATCCGCGAAACGGCAGCTTGGTCACCGCGGGTAGGATAGACCGCGAGGAGCTCTGTGCTCAGAGCCCG CGGTGTCTGGTGAGTTTTAACATCCTTGTCGAGGATAAACTGAATCTTTATCCCGTGGAAGTGGAAATAGTGGAC ATTAATGACAATACACCCCGATTCTTAAAGGAAGAATTGGAAGTGAAAATTCTCGAAAACGCAGCTCCATCCTCT CGTTTTCCACTAATGGAGGTCTATGACCCTGATGTGGGAATGAACTCCCTTCAGGGATTTAAGCTCAGTGGTAAT AGTCACTTCTCAGTGGACGTGCAAAGCCGAAGCCCATGGGCCCCAAGTACCCGGAGCTGGTGCTGGAGGGCACACTG GCCCAAATTCTGGTAACAGTTCTAGATGTGAATGACACACCCCAATGTTTACTCAGCCTGTCTACCGTGTAAGT GTTCCTGAAAACCTGCCAGTAGGCACCAGTGTTGGCAGTGACTGCCACCGACCAGGATGAAGGAGTCCACGGG GAAGTAACTTATTCCTTTGTGAAGATTACAGAAAAGATCTCACAAATTTTCTGTTTGAATGTTTTGACTGGAGAA ATTTCAACTTCTGCAAATCTAGACTATGAGGACTCGAGTTTTTATGAGCTGGGTGTTGAAGCCCGGGATGGGCCA GGTCTTCGAGACAGAGCGAAAGTCTTAATAACTATCTTGGATGTCAATGATAATGTACCAGAAGTGGTTGTTACA  ${\tt TCTGGCCTGAATGGCCTGGTAACCTGTTCCATCCCGAGAAGTCTCCCATTTGAATTGGAAAAATCAGTTGGCAAT}$ TATTATCGATTAGTGACAAATGCAGCTCTAGACCGGGAAGAGGTATTCTTGTACAACATCACTGTGACAGCCACG GACAAAGGAACACCACCTCTGTCTACAGAAACAATCATCTCTCTAAATGTGGCAGACACCAACGACAACCCGCCC ACCTTCCCCATTCATCCTACTCAGTCTATGTCCTTGAAAACAACCCCAGGGGTGCCTCCATCTTCTGTGAAT GCACTGGACCCTGACGTGGACCAGAACGCCCAAGTCTCCTACTCACTGGCAGAAGACACCCTCCAGGGGGCGCCC CTGTCCTCCTACGTGTCCATCAACTCCGACACTGGGATTCTGTACGCCCTGCGCTCCTTCGACTATGAGCAGTTG AGAGACCTACAGCTGTGGGTGACAGCCAGCGACAGCGGGGACCCGCCTCTTAGCAGCAACGTGTCACTGAGCCTG TTTGTGCTGGACCAGAATGACAATGCGCCCGAGATCCTGTACCCCGCCCTCCCCACAGACGGTTCCACTGGCGTG GAGCTGGCGCCCCGCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAG AACGCCTGGCTGTCCTACCGCCTGCTCAAGGCCAGCGAGCCAGGACTTTTCTCAGTGGGCCTGCACACGGGCGAG GTGCGCACGCGCGCGCCCTGCTGGACAGAGACGCGCTCAAGCAGAGCCTAGTGGTGGCCGTCCAGGACCACGGC CAGCCCCTCTCTCCGCCACTGTCACGCTCACCGTGGCCGTGGCCGACAGGATCCCCGACATCCTGGCCGACCTG GGCAGCCTCGAGCCCTCCGCCAAACCCAACGATTCGGACCTCACTCTGTACCTGGTGGTGGCGGTGGCCGCGGTC TCCTGCGTCTTCCTGGCCTTCGTCATCGTGCTGCTGCTGCTGCAGCTGCAGCGCTGGCACAAGTCACGCCTGCTG CAGGCTTCGGGAGGTGGCTTAGCGAGCATGCCCGGCTCGCACTTTGTGGGCGTGGAAGGGGTTCGGGCTTTCCTG CAGACCTATTCCCACGAGGTCTCACTCACTGCAGACTCGCGTAAGAGTCATCTGATTTTCCCCCAGCCCAACTAT GCCGACACGCTTATCAACCAGGAGAGCTATGAGAAAAGCGAGCCTCTTCTGATAACTCAGGATTTACTTGAAACG AAAGGAGAACCCAGGCAACTTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGC ACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCC ATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTG AGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGC AATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAG CTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGC TCCCCTTGGGAAACAGAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCCAGGGGGTTGAATATGCAAAAGC AGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAAC TCCCTCCTCCCCACCCCACCACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAAC CTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCC CCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACA CCTGGGGACCAGTCTTCTGTTTTGTTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCT 

### 1894/6881 FIGURE 1748B

## FIGURE 1749

MAPPQRHPQRSEQVLLLTLLGTLWGAAAAQIRYSIPEELEKGSFVGNIVKDLGLEPQELAEHGVRIVSRGRMQLF
SLNPRNGSLVTAGRIDREELCAQSPRCLVSFNILVEDKLNLYPVEVEIVDINDNTPRFLKEELEVKILENAAPSS
RFPLMEVYDPDVGMNSLQGFKLSGNSHFSVDVQSEAHGPKYPELVLEGTLDREGEAVYRLVLTAMDGGDPVRSSV
AQILVTVLDVNDNTPMFTQPVYRVSVPENLPVGTPVLAVTATDQDEGVHGEVTYSFVKITEKISQIFCLNVLTGE
ISTSANLDYEDSSFYELGVEARDGPGLRDRAKVLITILDVNDNVPEVVVTSGSRTIAESAPPGTVIALFQVFDRD
SGLNGLVTCSIPRSLPFELEKSVGNYYRLVTNAALDREEVFLYNITVTATDKGTPPLSTETIISLNVADTNDNPP
TFPHSSYSVYVLENNPRGASIFSVNALDPDVDQNAQVSYSLAEDTLQGAPLSSYVSINSDTGILYALRSFDYEQL
RDLQLWVTASDSGDPPLSSNVSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDRDSGQ
NAWLSYRLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADRIPDILADL
GSLEPSAKPNDSDLTLYLVVAVAAVSCVFLAFVIVLLALRLQRWHKSRLLQASGGGLASMPGSHFVGVEGVRAFL
QTYSHEVSLTADSRKSHLIFPQPNYADTLINQESYEKSEPLLITQDLLETKGEPRQLQQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

## FIGURE 1750A

ATGCCGCTCAGCCGAGGGGCGGGACTACAGAGGATTCTTCCTGCTCTCCATCCTCCTGGGGACCCCCTGGGAA GCCTGGGCAGGACGTATTCTCTACTCCGTGTCGGAGGAGACGGACAAAGGGTCCTTTGTGGGAGACATCGCCAAG GACCTGGGGCTGGAGCCCCGGGAGCTGGCGGAGCGCGCATCATCTCCAGAGGTAGGACGCAGCTTTTC GCCCTGAACCAGCGCAGCGGCAGCTTGGTCACTGCGGGCAGGATAGACCGGGAAGAGATCTGCGCTCAGAGTGCG CGGTGTCTGGTAAACTTTAACATCCTGATGGAAGATAAAATGAATCTTTACCCTATAGACGTGGAAATAATAGAT ATTAATGACAACGTTCCAAGATTCTTGACGGAAGAATAAATGTAAAAATAATGGAGAATACAGCTCCTGGGGTT CGCCACTTCTCCCTGGCTGTGCAAAGTGGAGACGATGAAACTAAGTACCCGGAACTGGTGCTGGAGCGGGTGCTG GACCGGGAGGAAGAGCGGGTTCACCACCTGGTCCTCACAGCCTCTGATGGCGGCGACCCGCCCCGATCCAGCACC GTCCCCGAGAATGTGCCAGTGGGTACAAGACTGCTCACGGTACATGCTATCGACCTGGACGAGGGAGTCAATGGG GAAGTGACATATTCTTTTCGGAAAATAACTCCTAAACTTCCAAAGATGTTTCATCTGAACTCGCTTACAGGAGAA ATATCAACTTTAGAAGGATTAGATTATGAAGAAACTGCCTTCTATGAAATGGAGGTTCAGGCTCAAGATGGTCCT GGTAGTCTGACAAAGGCAAAAGTACTGATCACAGTTTTAGATGTAAATGATAATGCTCCAGAAGTGACTATGACG TATTATAGATTGGTCACAACCAAAAACTTGGACCGGGAAACACTCTCTTTGTATAACATCACACTGAAAGCCACA ACCTTCCCCCACTCATCCTACTCAGTCTACATCGCTGAGAACAACCCCAGAGGGGCCTCCATTTTCTTAGTGACT GCACAGGACCACGACAGTGAGGATAATGCCCAGATCACTTATTCCTTGGCCGAAGACACCATCCAGGGGGCTCCA GTGTCCTCCTATGTCTCCATAAACTCTGACACTGGAGTCCTGTACGCGCTGCAATCCTTTGATTATGAGCAGTTG AGAGAACTACAACTAAGAGTGACTGCACATGACAGCGGGGACCCGCCTCTCAGCAGCAACATGTCACTGAGCCTG TTCGTGCTGGACCAGAATGACAACCCGCCCGAGATCCTGTACCCGGCCCTCCCCACAGATGGTTCTACTGGCATG GAGCTGGCACCCCGCTCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAAAGATTCAGGCCAG AACGCCTGGCTGTCATACCTCCTGCTTAAGGCCAGCGAGCCAGGACTCTTTGCGGTTGGGCTGTACACGGGCGAG GTGCGCACGGCTCGGGCCCTGCTGGACAGAGATGCCCTCAAGCAGAGCCTCGTGGTGGCCGTCCAGGACCACGGT GGCAGCCTTGAGCCCTCCGACGGTCCTTACAACTATGACCTCACGTTGTACCTGGTGGTGGCGGTGGCCACAGTC TCCTGCGTCTTCCTAGCCTTCGTCCTCGTACTGCTGGCGCTCAGGCTGCGGCGCTGGCACAAGTCACGCCTGCTG CAGGCTTCAGAAGGTGGCTTGGCGAACGTGCCCACCTCGCACTTTGTGGGCATGGACGGGGTGCAGGCTTTCCTG  ${\tt CAGACCTATTCCCATGAGGTCTCCCTCACCGCGGACTCTCGGAAGAGTCACCTGATCTTCCCCCAGCCCAACTAT}$ GTAGACATGCTCATCAGCCAGGAGAGCTGTGAGAAAAATGATTCTTTGCTAACATCCGTAGATTTTCAGGAATGT AAAGAAAACCTGCCAAGTATTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGC ACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCC ATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTG AGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGGCTACCGCCAGAATGTCTACATCCCAGGCAGC AATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAG TCGGGCAAGAAGAAGAAGTAACATGGAGGCCAGGCCAAGAGCCACAGGGCGCCTCTCCCCAACCAGCCCAG CTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGC TCCCCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGC AGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAAC TCCCTCCTCCCACCCACTCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAAC CTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCC CCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACA CCTGGGGACCAGTCTTCTGTTTTTCATTGTTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCT 

#### 1897/6881 FIGURE 1750B

#### 1898/6881 FIGURE 1751

MAAQPRGGDYRGFFLLSILLGTPWEAWAGRILYSVSEETDKGSFVGDIAKDLGLEPRELAERGVRIISRGRTQLF
ALNQRSGSLVTAGRIDREEICAQSARCLVNFNILMEDKMNLYPIDVEIIDINDNVPRFLTEEINVKIMENTAPGV
RFPLSEAGDPDVGTNSLQSYQLSPNRHFSLAVQSGDDETKYPELVLERVLDREEERVHHLVLTASDGGDPPRSST
AHIQVTVVDVNDHTPVFSLPQYQVTVPENVPVGTRLLTVHAIDLDEGVNGEVTYSFRKITPKLPKMFHLNSLTGE
ISTLEGLDYEETAFYEMEVQAQDGPGSLTKAKVLITVLDVNDNAPEVTMTSLSSSIPEDTPLGTVIALFYLQDRD
SGKNGEVTCTIPENLPFKLEKSIDNYYRLVTTKNLDRETLSLYNITLKATDGGTPPLSRETHIFMQVADTNDNPP
TFPHSSYSVYIAENNPRGASIFLVTAQDHDSEDNAQITYSLAEDTIQGAPVSSYVSINSDTGVLYALQSFDYEQL
RELQLRVTAHDSGDPPLSSNMSLSLFVLDQNDNPPEILYPALPTDGSTGMELAPRSAEPGYLVTKVVAVDKDSGQ
NAWLSYLLKASEPGLFAVGLYTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADSIPEVLADL
GSLEPSDGPYNYDLTLYLVVAVATVSCVFLAFVLVLLALRLRRWHKSRLLQASEGGLANVPTSHFVGMDGVQAFL
QTYSHEVSLTADSRKSHLIFPQPNYVDMLISQESCEKNDSLLTSVDFQECKENLPSIQQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1899/6881 FIGURE 1752A

**ATG**GCAGCTCCAACCAAATGCCAGCTCCGCGGAAGATTAGTCCTGCTATGCTCCTCGCGCATGCTATGGGAG GCCAGGGCCAGTCAGATTCGCTACTCAGTGCCTGAAGAGACAGAAAAGGGCTATATTGTGGGCAACATCTCCAAG GACCTGGCTCTGGAGCCCCGGGAGCTGGCGGAGCGCCGAGTCCGCATCGTCTCTAGAGGTAGGACGCAGCTTTTC TCTCTGAACCCGCGCAGCGGCACCTTGGTCACCGCGGGTAGGATAGACCGGGAGGAGCTCTGTGCTCAGAGCCCG CGGTGTCTGGTGAACTTTAAAGTCCTGGTTGAAGACAGAGTGAAACTGTACGGAATAGAAATAGAAGTAACTGAT ATTAACGACAGCGCCCAAAGTTCCAGGCCGAAAGTCTGGAAGTAAAAATTAACGAAATCGCGGTTCCTGGAGCA CACCACTTCTCCCTGAACGTGCAGACTGGAGACAATGGAGCCATAAACCCAGAGCTGGTGCTGGAGCGCCCCTG GTGCGCATCCATGTGACAGTGTTGGATACAAATGATAATGCCCCGGTTTTTGCTCAACGGATTTACCGAGTTAAA AAAGTGGCATACAAATTCTGGAAAATTAATGAAAAACAATCTCTGCTATTCCAGCTTAATGAAAATACTGGGGAA ATATCAACAGCAAAAAGTCTAGATTATGAAGATGTTCATTTTATGAAATGGAAATACAAGCTGAAGATGGTGGG GGATTGAAAGGGTGGACAAAAGTGCTCATTTCGGTGGAAGATGTAAATGACAATAGACCTGAAGTGACCATTACA TCTCTGTTTAGCCCAGTGAGAGAGAGCGCACCTCAGGGAACAGTAATTCTTCTTTTCAATGCTCATGACCGAGAC TATTACAGATTGTTGACGGCCCAAATTCTTGACCGAGAAAAAGCCTCAGAATATAATATCACGGTGACTGCAACA GCTTTCTCTCAAGCCTCCTACTCAGTCTACCTCCCGGAAAACAACGCCAGAGGTACTTCCATCTTCTCCGTGATT GCCTATGACCCTGATAGCAATGAGAATTCTAGAGTTATTTACTCCTTGGCAGAGGATACCATCCAAGGGTCTCCT CTCTCCACCTATGTCTCTATTAACTCAGACACTGGTGTGCTGTATGCTCTGTGCTCCTTTGACTATGAGCAGTTT AGAGATTTGCAAATGCAGGTGACGGCAAGTGACAGTGGAAGCCCACCACTTAGCAGCAATGTGTCATTGAGACTG TTTGTTTTGGACCAGAATGACAATGCCCCAGAAATCCTGTACCCTGCCCTCCCCACTGATGGTTCTACTGGTGTG GAGCTGGCACCCCGCTCTGCAGAGCCTGGCTACCTGGTGACCAAGGTGGTGGCAGTGGACAGAGACTCAGGCCAG AATGCTTGGCTCTCCTACCGCCTATTCAAGGCCAGTGAGCCAGGGCTCTTCTCGGTGGGGCTGCACACAGGTGAA GTGCGCACAGCTCGGGCCCTGCTAGATAGAGATGCGCTCAAACAGAGCCTTGTGGTGGCTGTACAGGACCATGGC CAGCCCCTCTCTCGGCCACTGTCACGCTCACAGTAGCCATAGCTGACAGCATCCCAGACATCCTGGCTGACCTG GGCAGTCTTCAGATCCCTGCAGACCTGGAGGCCTCAGACCTTACCCTCTACCTCGTTGTGGCTGTGGCAGTCGTC TCCTGTGTCTTCCTCACCTTCGTTATCACGCTGCTGGCCCTCAGGCTGAGGCACTGGCACTCCTCGCATCTGCTG CGGGCTACCAGTGATGGGTTGGCTGGTGTGCCCACCTCACACTTTGTGGGTGTAGATGGGGTTTCGAGCTTTCCTA CAGACCTATTCTCAGGAGTTCTCCCTCACCGCTGACTCAAGGAAGAGTCACCTGATCTTCCCCCAGCCCAACTAT GCAGACACACTCATCAGCCAGCAGAGCTGTGAGAAAAATGAGCCTTTGTGCGTCTCTGTTGATTCCAAGTTTCCT ATAGAAGACACCCCTTTGGTTCCGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGC ACCAGCGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCC ATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTG AGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGC AATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAG TCGGGCAAGAAGAAGAAGTAACATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAG CTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGC TCCCCTTGGGAAACAGTACCCAGTCAGCACCTTCCCCCCCAGGGGGTTGAATATGCAAAAGC AGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAAC TCCCTCCTCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAAC CTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCC CCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACA CCTGGGGACCAGTCTTCTGTTTTTGTTTTCATTGTTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCT 

#### 1900/6881 FIGURE 1752B

### 1901/6881 FIGURE 1753

MAAPTKCQLRGRLVLLCSLLGMLWEARASQIRYSVPEETEKGYIVGNISKDLALEPRELAERRVRIVSRGRTQLF
SLNPRSGTLVTAGRIDREELCAQSPRCLVNFKVLVEDRVKLYGIEIEVTDINDSAPKFQAESLEVKINEIAVPGA
RYPLPEAIDPDVGVNSLQSYQLSPNHHFSLNVQTGDNGAINPELVLERALDREEATAHHLVLTASDGGEPRRSST
VRIHVTVLDTNDNAPVFAQRIYRVKVLENVPPGTWLLTATASDLDEGINGKVAYKFWKINEKQSLLFQLNENTGE
ISTAKSLDYEECSFYEMEIQAEDGGGLKGWTKVLISVEDVNDNRPEVTITSLFSPVREDAPQGTVILLFNAHDRD
SGKNGQVVCSIQENLSFTLENSEEDYYRLLTAQILDREKASEYNITVTATDRGTPPLSTEIHITLQVTDINDNPP
AFSQASYSVYLPENNARGTSIFSVIAYDPDSNENSRVIYSLAEDTIQGSPLSTYVSINSDTGVLYALCSFDYEQF
RDLQMQVTASDSGSPPLSSNVSLRLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDRDSGQ
NAWLSYRLFKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAIADSIPDILADL
GSLQIPADLEASDLTLYLVVAVAVVSCVFLTFVITLLALRLRHWHSSHLLRATSDGLAGVPTSHFVGVDGVRAFL
QTYSQEFSLTADSRKSHLIFPQPNYADTLISQQSCEKNEPLCVSVDSKFPIEDTPLVPQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

## 1902/6881 FIGURE 1754A

**ATG**CAGAGAGCCAGAGAGCCGAAATGATGAAAAGTCAGGTACTGTTTCCCTTCCTGCTGTCTTTGTTCTGCGGG GCCATCTCCCAGCAGATCCGATACACGATTCCAGAGGAGCTAGCCAACGGCTCACGGGTGGGGAAACTTGCCAAG GATCTGGGGCTCAGTGTCCGGGAGTTGCCAACTCGAAAACTGCGGGTTAGTGCAGAGGATTATTTCAACGTTAGT CTAGAATTCGAAACGGTCGCTGAAAACCCAATGAATGTTTTCCACGTGGTTGTTGTAATCCAAGATATTAATGAC AATGCACCACGTTTCGTTGCAAAAGGCATTGACTTAGAAATTTGTGAGTCAGCCTTACCCGGGGTAAAATTCTCT TCTCTGTCAACGAAGGAAAGTCCTGATGGAAGTAAATATCCGGTATTACTGCTGGAAAAACCTCTAGACAGGGAA TGGATCCGAGTTACGGATGCCAATGATAATGCTCCCGTGTTTAGCCAGGAGGTATACAGGGTTAGCCTCCAAGAA AACGTACCGTGGGGAACCTCCGTGCTGCGGGTGATGGCCACAGACCAGGATGAGGGCATTAATGCAGAGATCACC TATGCCTTCCTCAATTCCCCAATAAGTACCAGCCTCTTCAATCTCAATCCAAATACTGGCGACATCACAACCAAT CACTGTAATGTTCAAATAGAAATTGTTGACGAGAATGACAATGCCCCAGAGGTGACATTCATGTCCTTCTCTAAC CAGATTCCAGAGGATTCAGACCTTGGAACTGTAATAGCCCTCATAAAAGTGCGAGACAAGGATTCTGGGCAAAAT GGCATGGTGACATGCTATACTCAGGAAGAAGTTCCTTTCAAATTAGAATCCACCTCGAAGAATTATTACAAGCTG GTGATTGCTGGAGCCCTAAACCGGGAGCAGACAGCAGACTACAACGTCACAATCATAGCCACCGACAAGGGCAAA CCAGCCCTTTCCTCCAGGACAAGCATCACCCTGCACATCTCCGACATCAACGACAATGCACCTGTTTTCCATCAG GCCTCCTATGTGGTCCACGTGTCTGAGAACAACCCACCTGGCGCCTCCATTGCACAAGTAAGCGCCTCCGACCCG GATTTGGGACCCAACGGCAGAGTCTCCTACTCTATTCTGGCCAGTGACCTGGAGCCGCGGGAGCTGTTGTCCTAC GTGTCCGTGAGCCCGCAGAGCGGGGTGGTGTTCGCGCAGCGCGCCTTCGACCACGAGCAGCTGCGCGCCTTCGAG CTCACACTGCAGGCCAGGGACCAGGGCTCCCCGCGCTCAGCGCCAACGTGAGCCTGCGCGTGTTGGTGGGCGAC CTCAATGACAATGCGCCACGGGTGCTGTACCCCGCGCTGGGGCCTGATGGCTCCGCCCTCTTCGATATGGTGCCA CGCGCCGCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACGCAGACTCAGGACACAACGCTTGGCTG TCCTACCACGTGCTGCAGGCCAGGCGCGGCTCTTCAGCCTGGGGTTGCGCACGGGTGAGGTGCGCACAGCG CGTGCCTTGGGCGACAGGGACGCGCCCAGCGCCTGCTGGTCGCTGTGCGTGATGGAGGACAGCCGCCACTC TCCGCCACCGCCACGCTGCACCTAATCTTCGCGGATAGCCTGCAAGAGGTATTGCCAGACCTCAGCGACCGCCCT GAGCCCTCTGACCCCCAGACGGAACTGCAGTTTTACCTGGTTGTGGCCTTGGCCTTGATCTCAGTGCTCTTTCTC CTCGCGGTGATTCTAGCGATCGCCCTGCGCCTGCGACGTTCCTCCAGCCTCGACACTGAGGGCTGCTTTCAAACC GGTCTCTGCTCCAAGTCTGGGCCCGGGGTTCCTCCCAACCACGGGGGGGACTTTGCCCTATTCCTACAATCTA TGTATTGCCTCTCATTCTGCAAAGACAGAGTTTAATTCTCTCAACCTGACACCGGAAATGGCTCCCCCTCAGGAT CTGCTGTGTGATGATCCTTCTATGGTTGTATGTGCCAGTAATGAAGATCACAAAATCGCTTATGACCCTTCTTTG TCTTCGCACCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAA AATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCC GCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGA CCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACC AACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAGAAGAAGAA AAGAAG<u>TAA</u>CATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGC ACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACA GAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAAC CCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCC CCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAG TTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTT GGTGCCAGCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCCA TGGTACTGATGCTTGCTGGATTTAGGGAGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCT TCTGTTTTGTTTTCATTGTTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCAAACAAGAGAC 

## FIGURE 1754B

#### 1904/6881 FIGURE 1755

MQRAREAEMMKSQVLFPFLLSLFCGAISQQIRYTIPEELANGSRVGKLAKDLGLSVRELPTRKLRVSAEDYFNVS
LESGDLLVNGRIDREKICGRKLECALEFETVAENPMNVFHVVVVIQDINDNAPRFVAKGIDLEICESALPGVKFS
LDSAQDADVEGNSLKLYTINPNQYFSLSTKESPDGSKYPVLLLEKPLDREHQSSHRLILTAMDGGDPPLSGTTHI
WIRVTDANDNAPVFSQEVYRVSLQENVPWGTSVLRVMATDQDEGINAEITYAFLNSPISTSLFNLNPNTGDITTN
GTLDFEETSRYVLSVEAKDGGVHTAHCNVQIEIVDENDNAPEVTFMSFSNQIPEDSDLGTVIALIKVRDKDSGQN
GMVTCYTQEEVPFKLESTSKNYYKLVIAGALNREQTADYNVTIIATDKGKPALSSRTSITLHISDINDNAPVFHQ
ASYVVHVSENNPPGASIAQVSASDPDLGPNGRVSYSILASDLEPRELLSYVSVSPQSGVVFAQRAFDHEQLRAFE
LTLQARDQGSPALSANVSLRVLVGDLNDNAPRVLYPALGPDGSALFDMVPRAAEPGYLVTKVVAVDADSGHNAWL
SYHVLQASEPGLFSLGLRTGEVRTARALGDRDAARQRLLVAVRDGGQPPLSATATLHLIFADSLQEVLPDLSDRP
EPSDPQTELQFYLVVALALISVLFLLAVILAIALRLRRSSSLDTEGCFQTGLCSKSGPGVPPNHSEGTLPYSYNL
CIASHSAKTEFNSLNLTPEMAPPQDLLCDDPSMVVCASNEDHKIAYDPSLSSHQAPPNTDWRFSQAQRPGTSGSQ
NGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNATLT
NAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1905/6881 FIGURE 1756A

**ATGANAGCGAGCTCAGGGAGGTGCGGGCTGGTGCGGTGGCTGCAGGTACTGTTGCCCTTCCTGTTGTCTTTGTTC**  $\tt CCCGGGGCTCTCCCAGTCCAGATCCGCTATTCAATTCCAGAGGAGCTGGCCAAAAACTCGGTCGTAGGAAACCTC$ GCCAAGGATCTGGGGCTCAGCGTCCGGGACTTGCCAGCCCGGAAGCTGCGGGTTAGCGCGGAGAAGGAATATTTC ACAGTAAACCCAGAAAGCGGAGACTTACTTGTGAGTGACAGAATAGACCGAGAACAGATATGCGGGAAGCAGCCT CTGTGTGTTCTGGATTTCGATACTGTCGCTGAAAATCCACTAAATATTTTCTACATAGCAGTAATTGTGCAGGAT ATAAATGATAATACCCCGCTATTCAAACAGACTAAGATTAATTTAAAAATTGGCGAATCCACTAAGCCAGGTACA ACATTTCCACTTGACCCAGCCCTGGATTCAGATGTTGGTCCTAACTCACTACAAAGATACCACCTTAATGACAAC GAGTACTTTGATCTCGCTGAGAAACAGACTCCAGATGGTCGTAAATATCCTGAGTTGATTCTAAAACACTCTCTG GACAGAGAGAGACCACTTTACATCAATTGGTCCTCACAGCTGTGGATGGCGGAGACCCACCTCAAAGTGGCACG ACCCAAATCCGAATCAAAGTCACGGATGCCAACGATAACCCTCCAGTGTTCAGCCAGGACGTGTACAGGGTCACC GAGATCACCTACTCCTTTCATAATGTGGACGAACAAGTGAAACACTTTTTCAACTTAAATGAAAAAAACAGGAGAA ATCACGACAAAGGATGATTTTGAGATTTGCAAGTAGTTACACTCTGAGTATCGAAGCAAAAGATCCTGGA GATCTAGCAGCCCACTGCAGTATCCAAGTTGAAATTCTTGATGACAACGATTGTGCACCTGAAGTTATTGTGACT TCAGTATCTACTCCCCTACCGGAGGATTCGCCACCAGGAACAGTGATCGCCTTGATAAAAACGAGAGACAGAGAC  ${\tt TCTGGAGAAATGGAGAAGTTTACTGCCAAGTGTTGGGAAATGCCAAGTTTATTTTGAAATCTTCCTCAAAGAAC}$ TATTACAAACTAGTGACAGACGGCGCTCTGGACCGGGAGGAGATCCCAGAATACAATCTCACCATCACAGCCACC GACGGGGGCAAGCCGCCCTCTCCTCCAGCATAATTGTCACCCTGCACATCTCCGACGTCAACGATAATGCCCCA GTTTTCCAACAGACTTCCTACATGGTTCACGTGGCAGAACAATCCTCCTGGCGCCTCTATCGCTCAAATCAGT ATTTTATCCTACGTGTCCGTGAGCGCGCAGAGCGGGGTGGTGTTCGCCAGCGCGCCTTCGATCATGAGCAGCTG CGCGCCTTCGAGCTCACACTGCAGGCCCGCGACCAGGGCTCGCCCGCGCTCAGCGCCAACGTGAGCCTGCGCGTG TTAGTGGGCGACCTCAATGACAATGCGCCACGGGTGCTGTACCCCGCGCTGGGGCCTGATGGCTCCGCCCTCTTC GATATGGTGCCACGCGCCAGAGCCCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACGCAGACTCAGGACAC AACGCTTGGCTGTCCTACCACGTGCTGCAGGCCAGCGAGCCCGGGCTCTTCAGCCTGGGGTTGCGCACGGGTGAG GTGCGCACAGCGCGTGCCTTGGGCGACAGGGACGCGGCCCGCCAGCGCCTGCTGGTCGCTGTGCGTGATGGAGGA CAGCCGCCACTCTCCGCTACGGCCACGCTGCACCTAATCTTCGCGGATAGCCTGCAAGAGGTATTGCCAGACCTC AGCGACCGCGGGAGCCCTCTGACCCCCAGGCAAAACTGCAGTTTTACCTGGTTGTGGCCTTGGCCTTGATCTCA GTGCTCTTCTTCCTCGCGGTGATTCTGGCAATCTCCCTGCGCCTGCGACTCTCTTCCAGGTCAGATGCTTGGGAC TGTTTTCAGCCTGGTCTCAGCCTCGAGCCTGGACCTGGGGTTCTCCCCAATTACAGTGAGGGTACATTGCCCTAT TCCTACAACCTGTGTGTTGCCTCACAATCAGCCAAGACAGAGTTCAATTTTCTGAACATAACCCCGGAATTGGTT  $\tt CCCGCGCAAGATCTCGTCTGTGACAATGCCTCTTGGGAACAAAATACAAATCATGGAGCCGCTGGGGTCCCTTTT$ GCCTCAGATACTATTTTGAAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACC AGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATG ATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGC GCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAAT GCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCG GGCAAGAAGGAGAAGAAG<mark>TAA</mark>CATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTT CTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCC CCTTGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGT TCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCAT CTCCTCCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTA AAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGA GGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCT 

#### 1906/6881 FIGURE 1756B

# FIGURE 1757

MKASSGRCGLVRWLQVLLPFLLSLFPGALPVQIRYSIPEELAKNSVVGNLAKDLGLSVRDLPARKLRVSAEKEYF
TVNPESGDLLVSDRIDREQICGKQPLCVLDFDTVAENPLNIFYIAVIVQDINDNTPLFKQTKINLKIGESTKPGT
TFPLDPALDSDVGPNSLQRYHLNDNEYFDLAEKQTPDGRKYPELILKHSLDREEHSLHQLVLTAVDGGDPPQSGT
TQIRIKVTDANDNPPVFSQDVYRVTLREDVPPGFFVLQVTATDRDEGINAEITYSFHNVDEQVKHFFNLNEKTGE
ITTKDDLDFEIASSYTLSIEAKDPGDLAAHCSIQVEILDDNDCAPEVIVTSVSTPLPEDSPPGTVIALIKTRDRD
SGENGEVYCQVLGNAKFILKSSSKNYYKLVTDGALDREEIPEYNLTITATDGGKPPLSSSIIVTLHISDVNDNAP
VFQQTSYMVHVAENNPPGASIAQISASDPDLGPSGQVSYSIVASDLKPREILSYVSVSAQSGVVFAQRAFDHEQL
RAFELTLQARDQGSPALSANVSLRVLVGDLNDNAPRVLYPALGPDGSALFDMVPRAAEPGYLVTKVVAVDADSGH
NAWLSYHVLQASEPGLFSLGLRTGEVRTARALGDRDAARQRLLVAVRDGGQPPLSATATLHLIFADSLQEVLPDL
SDRREPSDPQAKLQFYLVVALALISVLFFLAVILAISLRLRLSSRSDAWDCFQPGLSSKPGPGVLPNYSEGTLPY
SYNLCVASQSAKTEFNFLNITPELVPAQDLVCDNASWEQNTNHGAAGVPFASDTILKQAPPNTDWRFSQAQRPGT
SGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSN
ATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1908/6881 FIGURE 1758A

**ATG**GGAAATAGCTCCGGATGGAGGGGCCCAGCAGGGCAGAGGCGAATGCTATTTCTCTTCCTGCTCTTTTGTTA GACCAGGTTCTCTCCGAACCGATCCGCTACGCTATTCCCGAGGAGCTGGACAGGGGCTCGCTGGTAGGGAACCTC GCCAAGGACCTGGGGTTTTGGCGTGGGGGATTTACCTACTAGGAACCTGCGGGTTATTGCAGAGAAGAATTCTTT ACGTGTGTTCTGGAATTTGAAATGGTTGCTGAAAAGCCTTTAAACTTTTTTCATGTAACTGTGCTGATCCAGGAT ATTAACGACAACCCACCGACCTTTAGCCAAAATATCACTGAGCTGGAAATCAGCGAACTGGCTCTCACTGGAGCC ACATTTGCCCTGGAATCTGCGCAAGATCCTGATGTAGGTGTCAATTCGCTGCAGCAGTACTACCTCAGCCCTGAT CCGCACTTCTCTTTGATTCAGAAGGAGAACCTGGATGGCAGTAGGTACCCAGAGCTAGTACTGAAAGCACCCCTG ACCCAGATCAGGGTAATTGTCGCAGATGCAAATGATAACCCCCCAGTATTTACTCAGGACATGTACAGGGTCAAT GTTGCAGAGAACCTGCCCGCTGGCTCCTCCGTATTAAAAGTGATGGCCATTGACATGGATGAGGGCATCAATGCC GAAATCATCTATGCCTTCATCAATATTGGCAAGGAAGTGAGACAACTGTTCAAGCTGGACAGTAAAACGGGGGAA CTCACCACTATTGGAGAACTGGACTTTGAAGAGAGAGATAGCTACACAATTGGGGTGGAAGCAAAGGATGGTGGA CATCACACTGCATATTGTAAAGTACAGATAGATATTTCAGATGAAAATGACAATGCCCCGGAGATAACCCTGGCT TCTGAATCCCAACATATACAAGAAGATGCTGAGCTGGGGACTGCCGTTGCCCTGATCAAAACACATGATCTAGAT TCTGGATTTAATGGAGAAATCCTATGCCAACTAAAAGGAAACTTCCCCTTTAAAATCGTTCAAGATACCAAAAAC ACATACAGGTTGGTGACAGATGGAGCCCTGGACCGGGAGCAGATCCCAGAATACAATGTGACGATCACAGCTACC GACAAAGGCAATCCACCGCTCTCCTCCAGCAAGACCATCACTCTGCACATCCTTGATGTCAACGACAACGTTCCC GTTTTCCACCAGGCCTCCTACACCGTGCATGTAGCTGAGAACAATCCGCCTGGAGCCTCCATTGCGCATGTCAGA GCCTCGGATCCCGACTTGGGACCTAATGGCCTTGTCTCCTACTACATCGTGGCCAGTGACCTGGAGCCGCGGGAG CTGTCGTCCTACGTGTCCGTGAGCGCGGGGGGGGGGGTGGTTCGCCGCGCGGGCCTTCGACCACGAGCAGCTG CGTGCCTTCGAGCTCACTCTGCAGGCCCGCGACCAGGGCTCGCCTACGCTCAGCGCCAACGTGAGCCTGCGCGTG TTGGTGGACGACCGCAACGACAATGCACCGCTGGTGCTGTACCCAGCTCTGGGGCCCGAAGGCTCTGCGCTCTTC GATATGGTGCCGCGCTCTGCAGAGCCTGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACGCAGACTCGGGATAC AACGCCTGGCTGTCCTACCACATTGTGCAGGCCAGCGAGCCCGGGCTGTTCAGCCTGGGCCTGCGCACGGGTGAG GTGCGCACGGCGCGTACCTTGGGCGACAGGGAGGCCGCCGCCAGCGCCTGCTGGTCACTGTGCGTGATGGAGGA CAGCAGCCTCTTTCAGCCACCGTCATGCTGCACCTAATCTTCGCAGATAGCTTGCAAGAGATACAACCTGACCTT AGCGACCGCCCCACTCCCTCTGACCCTCAGGCGGAGCTACAGTTTCACCTAGTAGTGGCGTTGGCCTTGATCTCA GTGCTCTTCCTCCTCGCGGTGATTCTGGCAATCTCCCTGCGCCTGCGATGCTCCTCCAGACCCGCCACTGAGGGC TACTTTCAGCCTGGTGTCTGCTTCAAGACTGTACCTGGAGTTCTCCCCACCTACAGCGAAAGGACTTTGCCTTAT TCCTACAATCCGTGTGCTGCCTCACATTCCTCAAACACCGAGTTTAAATTTCTCAATATAAAGGCTGAAAATGCT GCACCACAAGATCTTCTATGTGATGAAGCCTCTTGGTTTGAAAGTAATGACAATCCAGAAATGCCTTCTAATTCA GGCAATTTGCAAAAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGC TCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTG GCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGC TACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACA CTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAG AAGGAGAAGAAGTAACATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTT ACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGG GAAACAGAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCT GGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCA CCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCC TCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTTGGCCTCTTTTGATTCTCAATCTTCCCCCAAAGCA TGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCA CAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACA 

#### 1909/6881 FIGURE 1758B

# FIGURE 1759

MGNSSGWRGPAGQRRMLFLFLLSLLDQVLSEPIRYAIPEELDRGSLVGNLAKDLGFGVGDLPTRNLRVIAEKKFF
TVSPENGNLLVSDRIDREEICGKKSTCVLEFEMVAEKPLNFFHVTVLIQDINDNPPTFSQNITELEISELALTGA
TFALESAQDPDVGVNSLQQYYLSPDPHFSLIQKENLDGSRYPELVLKAPLDREEQPHHHLVLTAVDGGEPSRSCT
TQIRVIVADANDNPPVFTQDMYRVNVAENLPAGSSVLKVMAIDMDEGINAEIIYAFINIGKEVRQLFKLDSKTGE
LTTIGELDFEERDSYTIGVEAKDGGHHTAYCKVQIDISDENDNAPEITLASESQHIQEDAELGTAVALIKTHDLD
SGFNGEILCQLKGNFPFKIVQDTKNTYRLVTDGALDREQIPEYNVTITATDKGNPPLSSSKTITLHILDVNDNVP
VFHQASYTVHVAENNPPGASIAHVRASDPDLGPNGLVSYYIVASDLEPRELSSYVSVSARSGVVFAQRAFDHEQL
RAFELTLQARDQGSPTLSANVSLRVLVDDRNDNAPLVLYPALGPEGSALFDMVPRSAEPGYLVTKVVAVDADSGY
NAWLSYHIVQASEPGLFSLGLRTGEVRTARTLGDREAARQRLLVTVRDGGQQPLSATVMLHLIFADSLQEIQPDL
SDRPTPSDPQAELQFHLVVALALISVLFLLAVILAISLRLRCSSRPATEGYFQPGVCFKTVPGVLPTYSERTLPY
SYNPCAASHSSNTEFKFLNIKAENAAPQDLLCDEASWFESNDNPEMPSNSGNLQKQAPPNTDWRFSQAQRPGTSG
SQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNAT
LTNAAGKRDGKAPAGGNGNKKKSGKKEKK

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#### 1911/6881 FIGURE 1760A

TGCCCGGCGCTCTGTGAGCAGATCCGCTACAGGATTCCCGAGGAAATGCCCAAGGGCTCCGTAGTGGGGAACCTC  ${\tt GCCACGGACCTGGGGTTCAGCGTCCAGGAGTTACCGACTCGAAAACTGCGCGTCAGTTCGGAGAAGCCTTACTTC}$ ACCGTGAGCGCAGAGAGCGGGGAGTTGCTTGTGAGCAGCAGGCTAGACAGGGAGGAGATATGCGGGAAGAAGCCA GCTTGTGCTCTGGAATTTGAGGCTGTTGCTGAAAATCCACTGAACTTTTATCACGTGAATGTGGAGATCGAGGAC ATTAATGACCACACGCCAAAATTCACGCAAAATTCCTTTGAGCTGCAAATAAGTGAGTCTGCACAGCCTGGCACA CCAAGTTTCTCATTAATAATTAAGGAGAAACAGGATGGTAGTAAATACCCGGAACTGGCACTGGAGAAAACCTTA GACCGGGAACAACAGAGTTACCATCGTTTAGTCCTGACTGCCTTGGACGGTGGACATCCACCCCTAAGCGGCACC ACTGAGCTCCGGATCCAGGTAACCGACGCCAATGATAATCCCCCGGTATTCAACCGAGACGTGTACAGAGTCAGC CTTCGGGAAAACGTGCCACCAGGCACCACTGTGTTGCAAGTGTCAGCCACTGACCAAGACGAGGGCATCAACTCA GAAATTACTTATTCCTTCTACAGAACCGGGCAAATCTTTAGTCTGAATTCAAAGAGCGGAAAATTACCACTCAA CANTGTACAGTTGAAATTAATATTCAAGATGAAAATGACAATAGCCCAGAAGTTACATTCCATTCTACTTGAA ATGATTCTGGAAAACGCGGTGCCTGGAACACTAATTGCTTTGATCAAAATACATGACCAAGATTCTGGGGAAAAT GGGGAGGTTAATTGTCAATTACAAGGCGAAGTCCCTTTTAAGATTATCTCTTCATCCAAAAATTCGTATAAGTTG CCGCCCTCTCCTCCAGCATAAGCGTCATCCTACATATCAGAGACGTCAACGATAACGCTCCGGTTTTCCACCAG GCGTCCTACTTAGTCAGTGTACCCGAAAACAACCCTCCTGGGGCCTCCATCGCGCAAGTCTGCGCCTCGGACCTG GACTTGGGGTTGAACGGCCAAGTCTCCTACTCTATCATGGCCAGCGACCTAGAGCCTCTGGCACTGGCCTCTTAC GTGTCCATGAGCGCGCAAAGTGGGGTGTTCTCGCGCAGCGCCCTTTGACTACGAGCAGCTGCGCACCTTCGAA CTCACACTACAGGCCCGCGACCAGGGCTCGCCTGCGCTCAGCGCAAACGTGAGCCTGCGCGTGTTGGTGGGCGAC CGCGCTGCAGAGCCCGGCTACCTGGTGACCAAGGTAGTGGCCGTGGACGCAGACTCAGGACACAACGCCTGGCTG TCCTACCACGTGCTGCAGGCTAGCGAGCCCGGGCTCTTCAGCCTGGGGCTGCGCACAGGAGAGGTGCGCACAGCG CGTGCCTTGGGCGACAGGGACGCCGCCCAGCGCCTGCTGGTTGCTGTGCGTGATGGTGGACAGCCGCCACTC  ${\tt TCCGCCACCGCCACGCTGCACTTGGTCTTTGCTGACAGCTTGCAGGAGGTGCTGCCGGATATCACTGACCGCCCT}$ GTACCCTCTGACCCCAGGCTGAGCTGCAGTTTTACCTAGTGGTGGCCTTGGCCTTGATCTCAGTGCTCTTCCTC CTGGCCGTGATTCTGGCCGTTGCCTTGCGCCTGCGACGCTCCTCCAGCCCTGCCGCCTGGAGCTGCTTCCAACCT GGTCTCTGTGTCAAGTCTGGACCTGTGGTTCCCCCCAACTACAGTCAGGGGACTTTGCCTTATTCCTACAACCTA TGTGTTGCACATACAGGAAAGACGGAGTTTAATTTCCTAAAATGTAGTGAGCAATTGAGTTCAGGACAAGACATA CTTTGTGGTGATTCATCTGGGGCCTTATTTCCACTTTGTAATTCCAGCGAGTCGACTTCCCATCCTGAGTTGCAA GCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGAC ACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCT GCTGATGGGAGCTCCACCCTGGGAGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACC CTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGC AAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAGAAGGAGAAGAAG<del>TAA</del>CAT GGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCA GAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCC CAGTCAGCACCTACCCCTTCCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATC AACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAG GGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCC TTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCCATGGTACTGATGC TTGCTGGATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTT TTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGT 

# FIGURE 1760B

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#### 1913/6881 FIGURE 1761

MGSGAGELGRAERLPVLFLFLLSLFCPALCEQIRYRIPEEMPKGSVVGNLATDLGFSVQELPTRKLRVSSEKPYF
TVSAESGELLVSSRLDREEICGKKPACALEFEAVAENPLNFYHVNVEIEDINDHTPKFTQNSFELQISESAQPGT
RFILEVAEDADIGLNSLQKYKLSLNPSFSLIIKEKQDGSKYPELALEKTLDREQQSYHRLVLTALDGGHPPLSGT
TELRIQVTDANDNPPVFNRDVYRVSLRENVPPGTTVLQVSATDQDEGINSEITYSFYRTGQIFSLNSKSGEITTQ
KKLDFEETKEYSMVVEGRDGGGLVAQCTVEINIQDENDNSPEVTFHSLLEMILENAVPGTLIALIKIHDQDSGEN
GEVNCQLQGEVPFKIISSSKNSYKLVTDGTLDREQTPEYNVTITATDRGKPPLSSSISVILHIRDVNDNAPVFHQ
ASYLVSVPENNPPGASIAQVCASDLDLGLNGQVSYSIMASDLEPLALASYVSMSAQSGVVFAQRAFDYEQLRTFE
LTLQARDQGSPALSANVSLRVLVGDRNDNAPRVLYPALGPDGSALFDMVPRAAEPGYLVTKVVAVDADSGHNAWL
SYHVLQASEPGLFSLGLRTGEVRTARALGDRDAARQRLLVAVRDGGQPPLSATATLHLVFADSLQEVLPDITDRP
VPSDPQAELQFYLVVALALISVLFLLAVILAVALRLRRSSSPAAWSCFQPGLCVKSGPVVPPNYSQGTLPYSYNL
CVAHTGKTEFNFLKCSEQLSSGQDILCGDSSGALFPLCNSSESTSHPELQAPPNTDWRFSQAQRPGTSGSQNGDD
TGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNATLTNAAG
KRDGKAPAGGNGNKKKSGKKEKK

#### 1914/6881 FIGURE 1762A

ATCGGAGGGAGCTGCGCGCAGAGGCGCCGGGCCCGCGCGCAGGTGCTATTTCCTTTGCTGCTGCCTTTGTTC TACCCCACCCTGAGTGAGCCGATCCGCTACTCGATTCCGGAGGAGCTGGCCAAGGGCTCGGTGGTGGGGAACCTC GCTAAGGATCTAGGGCTCAGTGTCCTGGATGTGTCGGCTCGCAAGCTGCGAGTGAGCGCGGAGAAGCTGCACTTC AGCGTAGACGCGGAGAGCGGGGACTTACTTGTGAAGAACCGAATAGACCGTGAGCAAATATGCAAAGAGAGAAGA AGATGTGAGTTGCAATTGGAAGCTGTGGTGGAAAATCCTTTAAATATTTTTCATGTCATTGTGGTGATTGAGGAT GTTAATGACCACGCCCCTCAATTTGATAAAAAGGAAATACATTTAGAAATTTTCGAATCTGCATCCGCTGGTACA CGACTATCGCTTGACCCTGCCACGGATCCTGATATAAACATAAACTCAATTAAAGATTATAAGATAAACTCTAAT CCTTATTTTCATTAATGGTTAGAGTTAATTCCGATGGTGGCAAATACCCAGAGTTATCTCTGGAGAAACTCCTA GACCGGGAAGAACAGAGATCTCATAGCTTGATATTGACTGCCTTGGACGGAGGGGACCCACCAAGAAGTGCCACC GCTCACATAGAAATTTCTGTCAAGGATACCAATGATAACCCCCCGGTTTTCAGCAGAGACGAATATAGAATTAGT  $\tt CTTAGTGAAAATCTGCCCCCTGGGTCCCCTGTGTTGCAAGTGACAGCCACTGACCAGGATGAGGGGGTCAATGCT$ GAGATAAACTACTTCCGAAGCACTGCCCAGAGCACAAAACATATGTTCTCATTGGATGAGAAAAACAGGTATG ATTAAGAATAACCAGTCATTTGATTTTGAAGATGTAGAAAGGTACACCATGGAAGTGGAAGCGAAGGACGGAGGT GGTCTCTCTACCCAGTGTAAAGTAATCATAGAAATCCTTGATGAAAACGACAACAGCCCAGAAATAATCATCACT TCTCTCTGATCAGATTTTGGAGAATTCACCTCCAGGAATGGTTGTTGCCCTCTTCAAAACACGGGATCTGGAT TACTACAAACTGGTGACAGATGGAGCCCTGGACCGAGAGCACCAGAATACAATGTCACCATCGTAGCCACT GACAGGGGCAAGCCGCCTCTTTCTTCCAGTAGAAGCATCACCTTGTATGTCGCTGACATCAACGACAACGCCCCA GTTTTCGACCAGACGTCCTACGTGGTCCACGTGGCCGAGAACAACCCGCCAGGAGCCTCCATTGCGCAAGTGAGC GCCTCTGACCGGATTTGGGGCTCAATGGCCACATCTCCTACTCTATAGTGGCGAGTGACCTAGAGCCCCTGGCG GTGTCGTCATACGTGTCAGTGAGCGCGCAGAGCGGGGTGTTCGCGCAGCGCGCCTTTGATCACGAGCAGCTG TTGGTGGGAGACCGCAATGACAACGCACCGCGGGTGCTGTACCCAGCTCTGGGTCCTGACGGCTCCGCGTTCTTC GATATGGTACCTCGCTCTGCAGAGCCCGGCTACCTAGTGACTAAGGTGGTAGCGGTGGACGCCGACTCGGGACAC AACGCCTGGCTGTCCTACCACGTGCTGCAGGCCAGTGAGCCCGGACTCTTCAGCCTGGGGCTGCGCACTGGGGAG GTGCGCACGGCTCGAGCCTTAGGCGACAGGGACGCAGCCCCGCCAGCGCCTGCTGGTCGCTGACGGTGGA CAGCCGCCACTCTCTGCCACCGCCACGCTTCATCTGGTCTTCGCAGACAACTTGCAAGAGATACTGCCAGACCTC GTGCTCTTCCTCCTCGCCGTGATTCTGGCCATTGCCTTGCGCCTGCGACGCTCTCTCAGCCCTGCTACTTGGGAC TGCTTCCATCCTGGTCTCTGTGTCAAGTCTGGACCTGTAGTTCCCCCCAACTACAGTGAGGGGACTTTGCCTTAT TCTTATAATCTGTGCATTGCACATACGGGTACAAAAGAGTTTAATTTCCTAAAATGCAGTGTGCCCCTACATTCC AATGAAGACATGGTTTGCAGTGTTTCTCCTGGAGCCTTAATTCCACCTCATGGTGGGGAGGATTTGACTTCACAT CCTGAGACTCTGACTICGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCCGGCACCAGC GGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATC TTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCC CGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCC ACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGC  $\mathtt{AAGAAGGAGAAGAAG}$   $\mathtt{TAA}$   $\mathtt{CATGGAGGCCAGGCCAAGAGCCACGGGCGCCTCTCCCCAACCAGCCCAGCTTCTC}$ CTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCT TGGGAAACAGAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCC GCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTG CTCCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAA GCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAA GCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCA GACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAA 

#### 1915/6881 FIGURE 1762B

MGGSCAQRRAGPRQVLFPLLLPLFYPTLSEPIRYSIPEELAKGSVVGNLAKDLGLSVLDVSARKLRVSAEKLHF
SVDAESGDLLVKNRIDREQICKERRRCELQLEAVVENPLNIFHVIVVIEDVNDHAPQFDKKEIHLEIFESASAGT
RLSLDPATDPDININSIKDYKINSNPYFSLMVRVNSDGGKYPELSLEKLLDREEQRSHSLILTALDGGDPPRSAT
AHIEISVKDTNDNPPVFSRDEYRISLSENLPPGSPVLQVTATDQDEGVNAEINYYFRSTAQSTKHMFSLDEKTGM
IKNNQSFDFEDVERYTMEVEAKDGGGLSTQCKVIIEILDENDNSPEIIITSLSDQILENSPPGMVVALFKTRDLD
FGGNGEVRCNIETDIPFKIYSSSNNYYKLVTDGALDREQTPEYNVTIVATDRGKPPLSSSRSITLYVADINDNAP
VFDQTSYVVHVAENNPPGASIAQVSASDPDLGLNGHISYSIVASDLEPLAVSSYVSVSAQSGVVFAQRAFDHEQL
RAFALTLQARDHGSPTLSANVSLRVLVGDRNDNAPRVLYPALGPDGSAFFDMVPRSAEPGYLVTKVVAVDADSGH
NAWLSYHVLQASEPGLFSLGLRTGEVRTARALGDRDAARQRLLVAVRDGGQPPLSATATLHLVFADNLQEILPDL
SDRPVLSDPQAELQFYLVVALALISVLFLLAVILAIALRLRRSLSPATWDCFHPGLCVKSGPVVPPNYSEGTLPY
SYNLCIAHTGTKEFNFLKCSVPLHSNEDMVCSVSPGALIPPHGGEDLTSHPETLTSQAPPNTDWRFSQAQRPGTS
GSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNA
TLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1917/6881 FIGURE 1764A

GCTGCGCAGACCTTGCCCAGCACACCAGATTGCCAGCTCCGAGACCCGGGACTCCTCCTGTCCTGGCCGAATGC TCTTTTAGCGCGGTAGAGTGCACTTTCTCCAACTGGAAAAGCGGGGGACCCAGCGAGAACCGAGCGAACGATGGG AGGGAGCTGCGCGGAGAGGCGCCGGGCCGGCCGGCAGGTACTATTTCCTTTGCTGCTGCCTTTGTTCTACCC CACGCTGTGTGAGCCGATCCGCTACTCGATTCCGGAGGAGCTGGCCAAGGGCTCGGTGGTGGGGAACCTCGCTAA GGATCTAGGGCTTAGTGTCCTGGATGTGTCGGCTCGCGAGCTGCGAGTGAGCGCGGAGAAGCTGCACTTCAGCGT AGACGCGCAGAGCGGGGACTTACTTGTGAAGGACCGAATAGACCGTGAGCAAATATGCAAAGAGAGAAGAAGATG TGAGTTGCAATTGGAAGCTGTGGTGGAAAATCCTTTAAATATTTTTCATGTCATTGTGGTGATTGAGGATGTTAA TGACCACGCCCTCAATTCCGGAAAGATGAAATAAACTTAGAAATCAGTGAATCCGTCAGCCTGGGGATGGGAAC AATTCTTGAGTCTGCAGAAGATCCTGATATTAGTATGAATTCGCTGAGCAAATACCAACTAAGTCCTAACGAGTA TTTCTCATTGGTGGAGAAAGACAATCCTGATGGTGGCAAATATCCAGAATTAGTATTGCAGAAGACTCTGGACCG AGAAACGCAGAGCGCTCACCACTTGGTACTGACCGCCTTAGATGGTGGGGACCCTCCCCGAAGCGGTACTGCTCA GATAAGAATCCTGGTAATAGATGCCAATGACAACCCCCCAGTGTTCAGCCAGGACGTGTACAGGGTTAGCCTTCG GGAAGACGTGCCTCCAGGCACCTCCATCCTGAGAGTGAAGGCCACTGACCAGGACGAGGGCATCAACTCAGAGAT CACTTATTCCTTCTTTGGTGTGGCTGACAAAGCTCAGCACGTGTTCTCTCTGGATTACACTACAGGAAACATTCT AACTCAGCAGCCTTTGGATTTTGAAGAAGTAGAAAGATATACGATAAACATAGAAGCAAAAGACCGAGGATCTCT  $\tt CTCAACACGGTGTAAAGTAATTGTAGAAGTTGTAGACGAAAACGACAACAGCCCAGAAATAATCATCACGTCACT$ CTCTGATCAGATTATGGAGGATTCCCCTCCAGGAGTGGTTGTTGCCCTCTTCAAAACACGGGACCAAGACTCAGG GGGCAAGCCTCCGTTATCCTCCAGCAAAACCATAACCCTGCACATTACTGACGTCAATGACAACGCGCCGGTTTT CGGACAGTCAGCCTACCTGGTCCACGTGCCAGAAAACAACCAGCCGGGTGCCTCCATAGCGCAAGTCAGTGCCTC TGACCCAGACTYCGGGCTCAACGGCCGTGTCTCCTACTCTCTCATTGCCAGCGACCTGGAGTCACGAACGCTGTC GTCCTACGTGTCCGTGAGCGCGCAGAGCGGGGTGGTGTTCGCGCAGCGCGCCTTCGACCACGAGCAGCTGCGCAC GGGCGACCGTAACGACACGCACCGCGGGTGCTGTACCCTGCGCTGGGTCCCGACGCTCCGCGCTCTTCGACAC AGTGCCGCGGGCCGCGCAGCCAGGCTACCTGGTGACCAAGGTGGTGGCCGTGGACGCGGACTCGGGGCACAATGC CTGGCTGTCCTACCACGTGGTGCAGGCCAGTGAGCCCGGGCTCTTCAGCCTGGGGCTGCGAACAGGCGAGGTGCG CATGGTGCGTGCTTTGGGTGACAAGGACTCGGTCCGCCAGCGCCTGCTAGTCGCTGTAAGAGATGGAGGACAGCC ACCCCTTTCAGCCACTGCCACGCTGCACCTGGTGTTCGCAGATAGCTTGCAAGAGGTACTGCCGGATTTCAGCGA CCATCCCACACCCTCTGACTCCCAGGCTGAGATGCAGTTTTACCTGGTGGTGGCCTTGGCCTTGATTTCTGTGCT CTTTCTCCTCGCGGTGATTCTAGCTATTGCTCTACGCCTGCGACAGTCTTTCAGCCCTACTGCAGGAGACTGCTT TGAGTCAGTTCTCTGCTCCAAGTCCGGACCTGTGGGTCCCCCCAACTACAGTGAGGGAACGTTGCCCTATGCCTA TAATTTTTGTGTGCCTGGGGATCAAATGAATCCAGAATTTAATTTTTTCACATCTGTTGATCATTGTCCAGCCAC ACAAGATAACCTCAACAAAGATAGCATGCTACTGGCTAGCATTTTAACTCCCAGCGTTGAAGCAGATAAGAAGAT TCTTAAACAGCAAGCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCA AAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTC CGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGG ACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGAC CAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTCGGGCAAGAAGAAGGA  ${\tt GAAGAAG} \underline{{\tt TAA}} {\tt CATGGAGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTG}$ CACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAAC AGAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAA CCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCC CCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTA GTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTT TGGTGCCAGCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCC ATGGTACTGATGCTTGCTGGATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTC

### 1918/6881 FIGURE 1764B

TTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCCTCAAACAAGAGA  ${\tt ATGGACAAGCTTGACACATCAAGTTATCAAGGCCTTGGAGGAGGCTCTGTATGTCCTCAGGGGACTGACAACAT}$ CCTCCAGATTCCAGCCATAAACCAATAACTAGGCTGGACCCTTCCCACTACATAATAGGGCTCAGCCCAGGCAGC  ${\tt CAGCTTTGGGCTGAGCTAACAGGACCAATGGATTAAACTGGCATTTCAGTCCAAGGAAGCTCGAAGCAGGTTTAG}$ GACCAGGTCCCCTTGAGAGGGTCAGAGGGGCCTCTGTGGGTGCTGGGTACTCCAGAGGTGCCACTGGTGGAAGGGT GCAGGGACCAAATGAACAGAAAGTCTCAGCCCAGGATGGGGCTTCTTCAACAGGGCCCCTGCCCTGAAGCCT CAGTCCTTCACCTTGCCAGGTGCCGTTTCTCTTCCGTGAAGGCCACTGCCCAGGTCCCCAGTGCGCCCCCTAGTG  ${\tt GCCATAGCCTGGTTAAAGTTCCCCAGTGCCTCCTTGTGCATAGACCTTCTTCTCCCACCCCCTTCTGCCCCTGGG}$  ${\tt TCCGCGCAGCCGTCTGTCCTTGATCTGCCCGCGGCGGCCCGTGTTGTGTTTTTGTGCTGTGTCCACGCGCTAAGGC}$ GACCCCCTCCCCGTACTGACTTCTCCTATAAGCGCTTCTCTTCGCATAGTCACGTAGCTCCCACCCCACCCTCT · TTCTTCTGAAAAGCTG

# FIGURE 1765

MGGSCAQRRRAGPRQVLFPLLLPLFYPTLCEPIRYSIPEELAKGSVVGNLAKDLGLSVLDVSARELRVSAEKLHF
SVDAQSGDLLVKDRIDREQICKERRRCELQLEAVVENPLNIFHVIVVIEDVNDHAPQFRKDEINLEISESVSLGM
GTILESAEDPDISMNSLSKYQLSPNEYFSLVEKDNPDGGKYPELVLQKTLDRETQSAHHLVLTALDGGDPPRSGT
AQIRILVIDANDNPPVFSQDVYRVSLREDVPPGTSILRVKATDQDEGINSEITYSFFGVADKAQHVFSLDYTTGN
ILTQQPLDFEEVERYTINIEAKDRGSLSTRCKVIVEVVDENDNSPEIIITSLSDQIMEDSPPGVVVALFKTRDQD
SGENGEVRCSLSRGVPFKIHSSSNNYYKLVTDEALDREQTPEYNVTIAATDRGKPPLSSSKTITLHITDVNDNAP
VFGQSAYLVHVPENNQPGASIAQVSASDPDFGLNGRVSYSLIASDLESRTLSSYVSVSAQSGVVFAQRAFDHEQL
RTFELTLQARDQGSPALSANVSLRVLVGDRNDNAPRVLYPALGPDGSALFDTVPRAAQPGYLVTKVVAVDADSGH
NAWLSYHVVQASEPGLFSLGLRTGEVRMVRALGDKDSVRQRLLVAVRDGGQPPLSATATLHLVFADSLQEVLPDF
SDHPTPSDSQAEMQFYLVVALALISVLFLLAVILAIALRLRQSFSPTAGDCFESVLCSKSGPVGPPNYSEGTLPY
AYNFCVPGDQMNPEFNFFTSVDHCPATQDNLNKDSMLLASILTPSVEADKKILKQQAPPNTDWRFSQAQRPGTSG
SQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNAT
LTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1920/6881 FIGURE 1766A

**ATG**CTCCGCAAGGTGAGAAGCTGGACAGAAATCTGGCGGTGGGCTACCCTTTTGTTCCTCTTTTACCACCTGGGT TACGTTTGTGGGCAGATCCGCTACCCGGTCCCAGAGGAGTCACAGGAAGGGACTTTTGTAGGGAATGTCGCTCAA GATTTCCTGCTGGATACGGACAGTCTGTCAGCTCGCAGGCTGCAGGTCGCTGGAGAGGTGAACCAAAGACACTTC CGTGTGGATTTGGACAGCGGAGCCCTGCTCATCAAGAACCCAATCGACCGAGAGGCACTGTGTGGGCTCAGTGCC AGCTGCATCGTGCCCCTGGAGTTTGTCACCGAAGGTCCTTTGGAAATGTACCGAGCAGAGGTAGAGATCGTAGAT GTGAATGATCACGCCCCCGTTTTCCGCGGCAGCAGCTGGACTTGGAAATTGGGGAGGCAGCTCCTCCAGGACAG CGTTTCCCGTTGGAAAAGGCTCAGGATGCAGATGTGGGGGAGCAATTCGATTAGCAGCTATAGGCTGAGCTCCAAT GAACACTTTGCACTGGATGTGAAGAAGCGCAGCGACGGCAGCCTGGTCCCAGAGCTGCTCCTGGAGAAGCCTTTG GATCGAGAGAAGCAATCGGACTACCGCCTGGTGCTGACTGCTGTCGATGGAGGGAACCCGCCGAGATCTGGCACC GCAGAGCTCCGGGTATCCGTGCTGGACGTAAACGACAACGCCCCAGCCTTCCAGCAATCCAGCTACAGGATTAGT GTGTTGGAGAGCGCACCAGCGGGCATGGTGCTCATCCAGCTCAATGCCTCAGACCCGGACCTGGGTCCCAGTGGT AACGTCACCTTTTATTTCAGTGGTCATACCCCTGATCGTGTAAGAAACCTCTTTAGCCTGCACCCCACTACTGGA AAGCTTACTCTTTTGGGGCCCCTAGACTTTGAGAGTGAGAATTACTATGAATTTGATGTGCGGGCTCGCGATGGG GGTTCTCCAGCCATGGAGCAACATTGCAGCCTTCGAGTGGATCTGCTGGACGTAAATGACAATGCCCCTTACATC ACAGTGACCTCAGAGCTTGGAACCCTCCCCGAGAGTGCAGAACCTGGCACTGTGGTGGCACTTATCAGTGTGCAG GATCCAGACTCAGGGTCAAACGGAGATGTGAGCCTCCGCATTCCTGACCACTTGCCATTTGCCCTCAAGTCTGCC TTCAGGAACCAGTTCTCCCTGGTGACTGCTGGACCCTTGGATCGAGAGGCCAAATCTAGCTATGACATCATGGTC ACTGCTTCTGATGCTGGGAACCCTCCTCTCAGTACCCACAGAACTATTTTCCTCAATATTTCAGATGTGAATGAT GATGTATCAGCTTCCTCTTCATCTCTCTGAACCCCCAGACAGGAGCTGTTCATGCTACTCGATCCTTTGACTAT GTTCGTCTATTTGTGCTGGACCTCAATGACAATGCTCCAGCTGTGCTCCGTCCTCGGGCCCGGCCTGGTTCCTTA TGTCCCCAAGCACTGCCTCCATCAGTTGGTGCTGGCCACCTAATCACAAAGGTGACTGCTGTGGACTTGGATTCA GGTTACAATGCTTGGGTTTCCTATCAGCTCCTGGAGGCCCCAGATCCCAGCCTGTTTGCAGTCTCTCGATATGCT GGGGAGGTGCGGACGGCTGTTCCTATCCCAGCTGACCTCCCACCACAGAAGCTGGTCATTGTGGTAAAGGATAGT GGTAGTCCACCACTCTCTACCTCTTTACTCTCTTAGTGTCCTTAGAGGAAGACACTCATCCAGTTGTCCCAGAT CTTCGAGAATCTTCAGCTCCAAGGGAAGGAGAATCTCGTCTAACCCTCTACTTGGCTGTCCCTAGTGGCAATT TGCTTTGTCTCCTTTGGCTCATTCGTGGCACTACTCTCTAAGTGTCTTCGTGGGGCAGCCTGTGGAGTCACATGC TTTCCTGCTGGCACCTGTGCCTGTCTCACCAGATCTCGAAGGAGGGGGGGCTTCCCCCTTCCAATGGGATCCTC CGAATCCAGCTAGGGTCAGATGACCCTATCAAGTTTGTTGATGTGGGAGGCCACTCTCATGGCTGTACACCCTTG GCTTCTGCACCCACTCGGAGTGATAGCTTCATGATGGTGAAGTCACCCAGTGCACCTATGGCAGGGGAGCCTGTT CAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGAC ACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGT GCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAAT GTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGC AATGGCAACAAGAAGTCGGGCAAGAAGGAGGAGAAGAAGTAACATGGAGGCCAGGCCCAGAGAGCCACAGGGCGGCCC TCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGG TAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGG GGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTT GTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCC TTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATG CAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTTTTCATTGTTTGACGTTTCCACTGCATGCCT TGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTCCAAGACAGTATGGGGTGGTAAGATAAGG

### 1921/6881 FIGURE 1766B

MLRKVRSWTEIWRWATLLFLFYHLGYVCGQIRYPVPEESQEGTFVGNVAQDFLLDTDSLSARRLQVAGEVNQRHF
RVDLDSGALLIKNPIDREALCGLSASCIVPLEFVTEGPLEMYRAEVEIVDVNDHAPRFPRQQLDLEIGEAAPPGQ
RFPLEKAQDADVGSNSISSYRLSSNEHFALDVKKRSDGSLVPELLLEKPLDREKQSDYRLVLTAVDGGNPPRSGT
AELRVSVLDVNDNAPAFQQSSYRISVLESAPAGMVLIQLNASDPDLGPSGNVTFYFSGHTPDRVRNLFSLHPTTG
KLTLLGPLDFESENYYEFDVRARDGGSPAMEQHCSLRVDLLDVNDNAPYITVTSELGTLPESAEPGTVVALISVQ
DPDSGSNGDVSLRIPDHLPFALKSAFRNQFSLVTAGPLDREAKSSYDIMVTASDAGNPPLSTHRTIFLNISDVND
NPPSFFQRSHEVFVPENNRPGDLLCSLAASDPDSGLNALISYSLLEPRNRDVSASSFISLNPQTGAVHATRSFDY
EQTQTLQFEVQARDRGNPPLSSTVTVRLFVLDLNDNAPAVLRPRARPGSLCPQALPPSVGAGHLITKVTAVDLDS
GYNAWVSYQLLEAPDPSLFAVSRYAGEVRTAVPIPADLPPQKLVIVVKDSGSPPLSTSVTLLVSLEEDTHPVVPD
LRESSAPREGESRLTLYLAVSLVAICFVSFGSFVALLSKCLRGAACGVTCFPAGTCACLTRSRRREGLPPSNGIL
RIQLGSDDPIKFVDVGGHSHGCTPLASAPTRSDSFMMVKSPSAPMAGEPVRPSCPPSDLLYGLEQAPPNTDWRFS
QAQRPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQN
VYIPGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

### 1923/6881 FIGURE 1768A

<u>ATG</u>GGGCCCAAGACACTCCCACAGCTCGCTGGGAAATGGCAAGTGCTGTGCATGTTGTCCTTGTGCTGGGGGC TGGGTGTCTGGGCAGCTTCGTTACTCAGTGGTGGAGGAGTCTGAGCCGGGGACGCTGGTGGGGAATGTTGCTCAG GATCTGGGCTTAAAGATGACAGATCTGTTGAGCCGGCGGCTGCAATTGGGCTCTGAGGAGAATGGGCCGCTATTTT TCCCTGAGCTTGATGAGTGGTGCCCTGGCAGTGAATCAAAAGATTGACCGAGAAAGCCTATGTGGAGCCAGCACC AGCTGCCTGCCAGTGCAGGTGGTGACTGAACACCCCCTGGAGCTAATCCGTGTAGAGGTAGAGATCCTGGAT CTCAATGACAACTCTCCTAGCTTTGCCACCCCTGAGCGAGAGATGCGCATCTCAGAATCAGCAGCATCTGGGGCA CGATTCCCACTGGACAGTGCCCAGGATCCGGATGTGGGCACCAATACTGTGAGCTTTTACACTCTAAGCCCCAAC AGCCACTTCTCTGAATGTGAAGACCCTAAAAGATGGGAAGCCATTCCCAGAGCTGGTGCTAGAGCAGCAGCTG GATCGTGAAGCCCAGGCAAGACATCAGCTGGTGCTTACTGCTGTGGATGGGGGGACCCCAGCCCGCTCAGGGACC ACCCTTATCTCTGTCATCGTGCTGGACATCAATGATAATGCTCCAACCTTCCAATCCTCAGTTCTACGTGTGGGA ATCCCAGAGAATGCACCCATTGGTACTCTGCTGCTCCGCCTCAATGCCACTGATCCAGACGAGGGCACCAACGGC CAACTAGACTATTCTTTTGGAGACCACACATCTGAGGCAGTGCGGAACCTCTTTGGCCTAGACCCTAGCAGTGGG GCAATCCATGTGTTGGGTCCCATAGACTTTGAGGAGTCACGTTTCTATGAAATTCATGCAAGAGCCCGTGACCAG GGACAGCCTGCCATGGAGGGCCACTGTGTGATTCAAGTGGATGTGGGGGGATGTCAATGACAATGCCCCAGAGGTG GACCGGGACTCAGGTAGAATGGTGAAGTGAGCCTTGATATCTCTCCGGACCTGCCATTTCAGATTAAGCCTTCT GAGAACCACTACTCGCTGCTAACCAGCCAGCCTTTGGACCGGGAGGCCACATCCCACTATATCATCGAGCTGCTG GCCAGCGATGCTGGTTCACCTTCCCTACACAAACATCTCACCATCAGGCTCAACATTTCAGATGTCAATGACAAT GCACCCGCTTCAACCAGCAGCTTTACACTGCTTACATCCTAGAAAACCGGCCTCCGGGCTCCCTTCTTTGCACT GTGGCTGCCTCAGATCCAGACACTGGGGATAATGCCCGCCTCACCTACTCCATTGTAGGAAATCAGGTTCAGGGA GCCCCAGCCTCCTCTTGTGTATGTCAACCCAGAGGATGGACGGATCTTTGCCCAGCGTACCTTTGACTATGAA TTGCTGCAGATGCTGCAGATTGTGGTGGGGGTTCGAGACTCCGGCTCTCCCCCATTGCATGCCAACACATCTCTG CATGTGTTTGTCCTAGACGAGAATGATAATGCCCCAGCTGTGCTGCACCCACGGCCAGACTGGGAACACTCAGCC CCCCAGCGTCTCCCTCGCTCCTCCTCGCTCCTTGGTCACCAAGGTGACAGCCGTGGATGCTGATGCAGGC GGTGAGGTGCGCACAGCCCGGGCCTTACTGGAGGATGACTCTGACACCCAGCAGGTGGTGGTCCTGGTGAGGGAC AATGGTGACCCTTCACTCCTCCACAGCCACAGTGCTGCTGGTTCTGGAGGATGAGGACCCTGAGGAAATGCCC AAATCCAGTGACTTCCTCATACACCCTCCTGAGCGTTCAGACCTTACCCTTTACCTCATTGTGGCTCTAGCGACC GTCAGTCTCTTATCCCTAGTCACCTTCACCTTTCTGTCAGCGAAGTGCCTTCAGGGAAACGCAGACGGGGACGGG GGTGGAGGGCAGTGCTGCAGGCCCAGGACTCACCCTCCCCGGACTTCTATAAGCAGTCCAGCCCCAACCTGCAG GTGAGCTCGGACGCCACAGTACATGGAGGTGACGCTGCGGCCCACAGACTCGCAGAGCCACTGCTACAGG ACGTGCTTTTCACCGGCCTCGGACGGCAGTGACTTCACTTTTCTAAGACCCCTCAGCGTTCAGCAGCCCACAGCT CTGGCGCTGGAGCCTGACGCCATCCGGTCCCGCTCTAATACGCTGCGGGAGCGGAGCCAGCAAGCCCCGCCCAAC ACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGG CCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGC TCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTG  ${\tt CCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGC}$ AAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGC TAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCCCAGTCAGCACCT ACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACC CATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAGCTGAACTCCTCC GAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCA TGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTC GGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGA CGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTCCAAGACAGTA

#### 1924/6881 FIGURE 1768B

MGPKTLPQLAGKWQVLCMLSLCCWGWVSQLRYSVVEESEPGTLVGNVAQDLGLKMTDLLSRRLQLGSEENGRYF SLSLMSGALAVNQKIDRESLCGASTSCLLPVQVVTEHPLELIRVEVEILDLNDNSPSFATPEREMRISESAASGA RFPLDSAQDPDVGTNTVSFYTLSPNSHFSLNVKTLKDGKPFPELVLEQQLDREAQARHQLVLTAVDGGTPARSGT TLISVIVLDINDNAPTFQSSVLRVGIPENAPIGTLLLRLNATDPDEGTNGQLDYSFGDHTSEAVRNLFGLDPSSG AIHVLGPIDFEESRFYEIHARARDQGQPAMEGHCVIQVDVGDVNDNAPEVLLASLANPVLESTPVGTVVGLFNVR DRDSGRNGEVSLDISPDLPFQIKPSENHYSLLTSQPLDREATSHYIIELLASDAGSPSLHKHLTIRLNISDVNDN APRFNQQLYTAYILENRPPGSLLCTVAASDPDTGDNARLTYSIVGNQVQGAPASSFVYVNPEDGRIFAQRTFDYE LLQMLQIVVGVRDSGSPPLHANTSLHVFVLDENDNAPAVLHPRPDWEHSAPQRLPRSAPPGSLVTKVTAVDADAG HNAWLSYSLLPQSTAPGLFLVSTHTGEVRTARALLEDDSDTQQVVVLVRDNGDPSLSSTATVLLVLEDEDPEEMP KSSDFLIHPPERSDLTLYLIVALATVSLLSLVTFTFLSAKCLQGNADGDGGGGQCCRRQDSPSPDFYKQSSPNLQ VSSDGTLKYMEVTLRPTDSQSHCYRTCFSPASDGSDFTFLRPLSVQQPTALALEPDAIRSRSNTLRERSQQAPPN TDWRFSQAQRPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHV PDYRQNVYIPGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

#### 1926/6881 FIGURE 1770A

TCATAAAACTGCAATGGTAAAAGCATTTATCCTATTGAAATTCCACAATTTTTATTTGAAAATATTATCGACATG TAATTCAAGTGGCATTTAGAAGAATAATTTAAAAGCAACAACTCTATAGAAAGCTTGTAAAAATGATTAAGTAGTT TAAACCAAATAAAACAATTTCTGAGTCAGTCATCTCCAGTAGGTCTATTTTAGTCTCAAGATAAATTCATTTCTG GTGACAACTGAAGTTCTTAGTTATTTGTTAGTATATTTGGAGACATTTACAATAAAGCTTAGAGCACAATGGGA AATGAAAGTATCATGTTTTTTTTTAAGACCAAATGTATTGCAGAAATGTGAGTAATTTAATCCGATGCTACAATCT TCTAGTAGAGTATTACATTTAGAAGTAATCTGTATCTCAGTGCAGTAACTATTTAGGACTGTAAGCGCCGCTGTT CACCTACTGGAAGACAAATGCAACCGAAAACACTCAGATCTCACACCTCACGAAGACCCGCAGATGCCACAAACT AACTGCTGGACTGCAGCGAAACCCGACCCCTGTTTGGAGGCACTCCAGGTTTCCGGAGGATTGTCATCTCCATAG  $\underline{\textbf{G}}\texttt{GCCGCTCCACAGAGTCGCCCCAGACGCGGAGCTGATCCTGCTGTGCGCGCTGCTGGGAACGCTGTGGGAAAT}$ CGGGAGGGGACAGATTCGCTACTCTGTGCCAGAAGAGACGGACAAAGGCTCCTTCGTGGGTAATATCTCCAAGGA  ${\tt CCTGGGGCTGGACCCCGGAAGCTGGCGAAGCACGGAGTCCGTATCGTCTCCAGAGGTAGGACGCAGCTCTTTGC}$ TCTGAACCCGCGCAGCGCAGCTTGATCACCGCGGGCAGGATAGATCGGGAGGAGCTCTGCGCTCAGAGCCCGCG GTGTCTGATAAATATTAACACCCTGGTTGAGGATAAAGGAAAACTCTTTGGGGTAGAAATAGAAATAATTGATAT TAACGATAATAACCCAAAATTCCAGGTCGAAGATCTAGAAGTAAAAATTAACGAAATCGCGGTTCCTGGAGCACG CAGGGAGGAAGAGGCTGCTCACCACCTGGTCCTCACGGCCTCGGATGGCGGCAAGCCGCCTCGCTCTAGCACAGT GCGCATCCACGTGACAGTGTTGGATACAAATGACAATGCCCCGGTTTTTCCTCACCCGATTTACCGAGTGAAAGT AGTGGCATACAAATTCCGGAAAATTAATGAAAAACAAACTCCGTTATTCCAGCTTAATGAAAAATACTGGGGAAAT ATCAATAGCAAAAAGTCTAGATTATGAAGAATGTTCATTTTATGAAATGGAAATACAAGCCGAAGATGTGGGGGC ACTTCTGGGGAGGACCAAATTGCTCATTTCGGTGGAAGATGTAAATGACCAGAAGTGATCATTACGTC TTTGTTTAGCCCAGTGTTAGAAAATTCTCTTCCCGGGACAGTAATTGCCTTCTTGAGTGTGCATGACCAAGACTC TGGAAAGAATGGTCAAGTTGTCTGTTACACACGTGATAATTTACCTTTTAAATTAGAAAAGTCAATAGGTAATTA TCTAGGAACACCACCTCTGTCCACTGAAACTCAAATCGCTCTGCACGTGGCAGACATTAACGACAACCCTCCTAC TTTCCCTCATGCCTCCTACTCAGCGTATATCCTAGAGAACAACCTGAGAGGAGCCTCCATCTTTTCCTTGACTGC ACACGACCCCGACAGCCAGGAGAATGCCCAGGTCACTTACTCTGTGACCGAGGACACGCTGCAGGGGGCGCCCCT GTCCTCGTATATCTCCATCAACTCTGACACCGGTGTCCTGTATGCGCTGCAATCTTTCGACTATGAGCAGATCCG AGACCTGCAGCTACTGGTAACAGCCAGCGACAGCGGGGACCCGCCCCTCAGCAGCAACATGTCACTGAGCCTGTT CGTGCTGGACCAGAATGACAACGCGCCCGAGATCCTGTACCCCGCCCTCCCCACAGACGGTTCCACTGGCGTGGA GCTGGCGCCCCGCTCCGCAGAGCGTGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAGAA GCGCACGGCGCGAGCCCTGCTGGACAGAGATGCGCTCAAGCAGAGCCTCGTGGTGGCCGTCCAGGACCATGGCCA GCCCCTCTCTCCGCCACTGTCACGCTCACCGTAGCCGTGGCTGACAGCATCCCCGAAGTCCTGACCGAGTTGGG CAGTCTGAAGCCTTCGGTCGACCCGAACGATTCGAGCCTTACACTCTATCTCGTGGTGGCAGTGGCTGCCATCTC CTGTGTCTTCCTCGCCTTTGTCGCTGTGCTTCTGGGGCTCAGGCTGAGGCGCTGGCACAAGTCACGCCTGCTCCA GGATTCCGGTGGCAGATTGGTAGGCGTGCCTGCCTCACATTTTGTGGGTGTTGAGGAGGTACAGGCTTTCCTGCA GACCTATTCCCAGGAAGTCTCCCTCACCGCCGACTCGCGGAAGAGTCACCTGATCTTTCCCCAGCCCAACTACGC AGACATGCTCATCAGTCAGGAGGGCTGTGAGAAAAATGATTCTTTGTTAACATCCGTAGATTTTCATGAATATAA GAATGAAGCTGATCATGGTCAGCAAGCCCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCAC CAGCGGCTCCCAAAATGGCGATGACACCGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCAT GATCTTGGCGTCCGCCAGTGAAGCTGCTGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAG CGCCCGCTACGGACCCCAGTTCACCCTGCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAA

#### 1927/6881 FIGURE 1770B

TGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGCAACAAGAAGAAGTC  ${\tt GGGCAAGAAGAAGAAG{\tt TAACATGGAGGCCAGGCCAAGAGCCACGGGCGGCCTCTCCCCAACCAGCCCAGCT}}$ TCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTC CCCTTGGGAAACAGAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAG TTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCA CCTCCTCCCCACCCCACTCCAACAGTTCCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCT ACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCC CAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATG TGGGGACCAGTCTTCTGTTTTGTTTTCATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCC GATGGTGGGGGCATGGACAAAGCTTGACACATCAAGTTATCAAGGCCTTGGAGGAGGCTCTGTATGTCCTCAGGG GACTGACAACATCCTCCAGATTCCAGCCATAAACCAATAACTAGGCTGGACCCTTCCCACTACATAATAGGGCTC AGCCCAGGCAGCCAGCTTTGGGCTGAGCTAACAGGACCAATGGATTAAACTGGCATTTCAGTCCAAGGAAGCTCG AAGCAGGTTTAGGACCAGGTCCCCTTGAGAGGTCAGAGGGGCCTCTGTGGGTGCTGGGTACTCCAGAGGTGCCAC CAGGGAGCTAGGGCAGGGACCAAATGAACAGAAAGTCTCAGCCCAGGATGGGGCTTCTTCAACAGGGCCCCTGCC CTCCTGAAGCCTCAGTCCTTCACCTTGCCAGGTGCCGTTTCTCTTCCGTGAAGGCCACTGCCCAGGTCCCCAGTG CGCCCCTAGTGGCCATAGCCTGGTTAAAGTTCCCCAGTGCCTCCTTGTGCATAGACCTTCTTCTCCCACCCCCT TCTGCCCCTGGGTCCCCGGCCATCCAGCGGGGCTGCCAGAACCCCAGACCTGCCCTTACAGTAGTGTAGCGCC CGGGCGGCGGCCCCCGCGCAGCCGTCTTGTCCTTGATCTGCCCGCGGCGCCCGTGTTGTGTTTTTGTGCTGTGTCC ACGCGCTAAGGCGACCCCCTCCCCGTACTGACTTCTCCTATAAGCGCTTCTCTTCGCATAGTCACGTAGCTCCC ACCCCACCCTCTTCCTGTGTCTCACGCAAGTTTTATACTCTAATATTTATATGGCTTTTTTTCTTCGACAAAAAA ATAATAAAACGTTTCTTCTGAAAAGCTG

MAAPQSRPRRGELILLCALLGTLWEIGRGQIRYSVPEETDKGSFVGNISKDLGLDPRKLAKHGVRIVSRGRTQLF
ALNPRSGSLITAGRIDREELCAQSPRCLININTLVEDKGKLFGVEIEIIDINDNNPKFQVEDLEVKINEIAVPGA
RYPLPEAVDPDVGVNSLQSYQLSPNHHFSLDVQTGDNGAINPELVLERALDREEEAAHHLVLTASDGGKPPRSST
VRIHVTVLDTNDNAPVFPHPIYRVKVLENMPPGTRLLTVTASDPDEGINGKVAYKFRKINEKQTPLFQLNENTGE
ISIAKSLDYEECSFYEMEIQAEDVGALLGRTKLLISVEDVNDNRPEVIITSLFSPVLENSLPGTVIAFLSVHDQD
SGKNGQVVCYTRDNLPFKLEKSIGNYYRLVTRKYLDRENVSIYNITVMASDLGTPPLSTETQIALHVADINDNPP
TFPHASYSAYILENNLRGASIFSLTAHDPDSQENAQVTYSVTEDTLQGAPLSSYISINSDTGVLYALQSFDYEQI
RDLQLLVTASDSGDPPLSSNMSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAERGYLVTKVVAVDRDSGQ
NAWLSYRLLKASEPGLFSVGLHTGEVRTARALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADSIPEVLTEL
GSLKPSVDPNDSSLTLYLVVAVAAISCVFLAFVAVLLGLRLRRWHKSRLLQDSGGRLVGVPASHFVGVEEVQAFL
QTYSQEVSLTADSRKSHLIFPQPNYADMLISQEGCEKNDSLLTSVDFHEYKNEADHGQQAPPNTDWRFSQAQRPG
TSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGS
NATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

### 1929/6881 FIGURE 1772A

GCCTCTACCACACAAAGCGGAATGAGATGGATACTCACAGATCCTGACACTGGAGACTTAGAAGTATTTTCCTTC GAGAAACCGCGGAATATCGGCTTAGAGCCTGCC<u>ATC</u>GCGAATCGGCTACAGCGCGGGGACCGCAGTCGGCTGCTG ACCGAAAAGGGCTCCTTCGTGGGCAATATCTCCAAGGACCTGGGGCTGGAGCCCCGGGAGCTGGCGAAGCGCGGA GTCCGCATCGTCTCCAGAGGGAAGACACAGCTTTTCGCTGTGAATCCGCGAAGCGGCAGCTTGATCACGGCAGGC AGGATAGACCGGGAGGAGCTCTGTGAGACGGTGTCCTCCTGTTTTTTAAATATGGAACTTCTCGTGGAAGACACC TTGAAGATTTACGGAGTGGAGGTGGAAATAATAGATATTAATGATAACGCCCCCAGCTTCCAGGAGGACGAAGTG GAGATAAAAGTCAGTGAGCACGCAATTCCTGGGGCGCGATTTGCTCTTAATGCTAGGGATCCAGATGTGGGC GTGAACTCCCTCCAGAGCTACCAGCCCCAATAATTACTTTTCCTTGCAACTGCGGGGCAGAACGGATGGG GCCAAGAATCCAGAGCTAGTACTGGAGGGAAGCCTGGACCGAGAGAAAGAGGCTGCTCACCTCCTCACA GCTTTAGATGGAGGCGATCCCATCCGAAAGGGCGCAGTTCCCATTCGTGTGGTGGTCCTCGATGTAAATGATCAC ATCCCAATGTTTACACAGTCCGTATATCGCGTGAGTGTTCCAGAAAACATCAGCTCCGGAACTCGGGTGCTGATG GTTAATGCAACGGATCCAGACGAGGGAATCAACGGGGAAGTAATGTATTCATTTCGGAACATGGAAAGCAAGGCT TCTGAAATATTCCAATTGGATTCACAAACTGGAGAAGTTCAAGTACGGGGGTCTCTGGATTTTGAAAAATATAGA TTCTATGAGATGGAAATTCAAGGCCAAGATGGTGGAGGTCTCTTTACCACCACGACGATGTTGATCACTGTTGTG GATGTGAATGATAACGCTCCAGAAATAACTATCACCTCTTCTATTAATTCAATTCTGGAAAACTCTCCTCCAGGT ACAGTGATTGCTCTTAAATGTGCAAGATCAAGATTCTGGAGAAAATGGTCAAGTCTCCTGTTTTATTCCTAAC CACCTGCCTTTTAAATTAGAAAAGACTTATGGAAATTATTACAAATTGATAACAAGCAGAGTGCTGGACAGGGAG TTGGTCCAGAGCTACAATATAACGTTGACAGCCACAGACCAGGGAAGCCCGCCTTTGTCTGCAGAAACTCATGTC TGGCTGAATGTGGCAGATGACAACGATAACCCTCCCGTTTTTCCTCACTCCTCTTACTCTGCCTACATTCCCGAA AACAACCCCAGGGGTGCCTCCATCTTCTCAGTGACCGCCCTCGACCCGGACAGCAAACAGAATGCCCTGGTCACT TACTCTCTGACGGATGACACTGTCCAGGGGGTGCCTCTGTCCTCTATGTCTCTATTAACTCCAACACTGGTGTT CTCTATGCCCTACAATCCTTCGACTATGAGCAGTTTCGAGACTTAGAACTGAGAGTGATAGCACGTGACAGCGGG GACCCGCCCTCAGCAGCAACGTGTCGCTGAGCCTGTTCGTGCTGGACCAGAACGACAATGCGCCCGAGATCCTG TACCCTGCCCTCCCCACAGACGGCTCCACTGGCGTGGAGCTGGCGCCCCGCTCTGCGGAACCTGGCTACCTGGTG ACCAAGGTGGTTGCGGTGGACAAGATTCAGGCCAGAACGCCTGGCTGTCCTATCGCCTGCTTAAGGCCAGCGAG CAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACACCGGCCACCTGGCCCAACAACCAGTTTGACACAGAG ATCCCAGGCAGCAATGCCACCTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGTGGCAATGGC CAACCAGCCCAGCTTCTCCTTACCTGCACCCAGGCCTCAGAGTTTCAGGGCTAACCCCCAGAATACTGGTAGGGG CCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCCCAGTCAGCACCTACCCCTTCCCCCCAGGGGGTTGA ATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAACTGCTGTACCCATGGGGGTAGTGGGGTTACTGTA GTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGGAAGGGCATCATGACCTCTTGGCCTCCTTTGAT TCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTTCACCTCCTTCCAGAGCCCAAGATCAATGCTCAAG AGTGTGGGATGTGGATGGGGGGCATGGACAAAGCTTGACACATCAAGTTATCAAGGCCTTGGAGGAGGCTCT GTATGTCCTCAGGGGACTGACAACATCCTCCAGATTCCAGCCATAAACCAATAACTAGGCTGGACCCTTCCCACT TCCAAGGAAGCTCGAAGCAGGTTTAGGACCAGGTCCCCTTGAGAGGGTCAGAGGGGCCTCTGTGGGTGCTGGGTAC

# FIGURE 1772B

MANRLQRGDRSRLLLLLCIFLGTLRGFRARQIRYSVPEETEKGSFVGNISKDLGLEPRELAKRGVRIVSRGKTQL
FAVNPRSGSLITAGRIDREELCETVSSCFLNMELLVEDTLKIYGVEVEIIDINDNAPSFQEDEVEIKVSEHAIPG
ARFALPNARDPDVGVNSLQSYQLSPNNYFSLQLRGRTDGAKNPELVLEGSLDREKEAAHLLLLTALDGGDPIRKG
AVPIRVVVLDVNDHIPMFTQSVYRVSVPENISSGTRVLMVNATDPDEGINGEVMYSFRNMESKASEIFQLDSQTG
EVQVRGSLDFEKYRFYEMEIQGQDGGGLFTTTTMLITVVDVNDNAPEITITSSINSILENSPPGTVIALLNVQDQ
DSGENGQVSCFIPNHLPFKLEKTYGNYYKLITSRVLDRELVQSYNITLTATDQGSPPLSAETHVWLNVADDNDNP
PVFPHSSYSAYIPENNPRGASIFSVTALDPDSKQNALVTYSLTDDTVQGVPLSSYVSINSNTGVLYALQSFDYEQ
FRDLELRVIARDSGDPPLSSNVSLSLFVLDQNDNAPEILYPALPTDGSTGVELAPRSAEPGYLVTKVVAVDKDSG
QNAWLSYRLLKASEPGLFAVGEHTGEQAPPNTDWRFSQAQRPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASAS
EAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK

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# FIGURE 1774

CAGAAAGCCATGTCGGACTCGGCGCCCAGCGCCCAAGCGCTAACCCGCTGAAAGTTTCTCAGCGAAATCTCAGGG CCCGCCCAACACGGACTGGCGTTTCTCTCAGGCCCAGAGACCCGGCACCAGCGGCTCCCAAAATGGCGATGACAC CGGCACCTGGCCCAACAACCAGTTTGACACAGAGATGCTGCAAGCCATGATCTTGGCGTCCGCCAGTGAAGCTGC TGATGGGAGCTCCACCCTGGGAGGGGGTGCCGGCACCATGGGATTGAGCGCCCGCTACGGACCCCAGTTCACCCT GCAGCACGTGCCCGACTACCGCCAGAATGTCTACATCCCAGGCAGCAATGCCACACTGACCAACGCAGCTGGCAA AGGCCAGGCCAAGAGCCACAGGGCGGCCTCTCCCCAACCAGCCTCTCCCTTACCTGCACCCAGGCCTCAGA GTTTCAGGGCTAACCCCCAGAATACTGGTAGGGGCCAAGGCCATGCTCCCCTTGGGAAACAGAAACAAGTGCCCA GTCAGCACCTACCCCTTCCCCCCAGGGGGTTGAATATGCAAAAGCAGTTCCGCTGGGAACCCCCATCCAATCAA CTGCTGTACCCATGGGGGTAGTGGGGTTACTGTAGACACCAAGAACCATTTGCCACACCCCGTTTAGTTACAGCT CCTCTTTCCCGAGTAAGGTGGTTGGGGTGTTGAAGTACCAAGTAACCTACAAGCCTCCTAGTTCTGAAAAGTTGG AAGGGCATCATGACCTCTTGGCCTCTCCTTTGATTCTCAATCTTCCCCCAAAGCATGGTTTGGTGCCAGCCCCTT CACCTCCTTCCAGAGCCCAAGATCAATGCTCAAGTTTTGGAGGACATGATCACCATCCCCATGGTACTGATGCTT GCTGGATTTAGGGAGGGCATTTTGCTACCAAGCCTCTTCCCAACGCCCTGGGGACCAGTCTTCTGTTTTTT CATTGTTTGACGTTTCCACTGCATGCCTTGACTTCCCCCACCTCCTCAAACAAGAGACTCCACTGCATGTTC CACATCAAGTTATCAAGGCCTTGGAGGAGGCTCTGTATGTCCTCAGGGGACTGACAACATCCTCCAGATTCCAGC CTAACAGGACCAATGGATTAAACTGGCATTTCAGTCCAAGGAAGCTCGAAGCAGGTTTAGGACCAGGTCCCCTTG AGAGGTCAGAGGGGCCTCTGTGGGTGCTGGGTACTCCAGAGGTGCCACTGGTGGAAGGGTCAGCGGAGCCCCAGC AGGAAGGGTGGGCCAGCCAGGCCATTCTTAGTCCCTGGGTTGGGGAGGCAGGGAGCTAGGGCAGGGACCAAATGA ACAGAAAGTCTCAGCCCAGGATGGGGCTTCTTCAACAGGGCCCCTGCCCTCGAAGCCTCAGTCCTTCACCTTG CCAGGTGCCGTTTCTCTCCGTGAAGGCCACTGCCCAGGTCCCCAGTGCGCCCCCTAGTGGCCATAGCCTGGTTA AAGTTCCCCAGTGCCTCCTTGTGCATAGACCTTCTTCTCCCACCCCTTCTGCCCCTGGGTCCCCGGCCATCCAG GTCCTTGATCTGCCCGCGGCGGCCCGTGTTGTGTTTTTGTGCTGTGTCCACGCGCTAAGGCGACCCCCTCCCCCGT 

 ${\tt MVPEAWRSGLQAPPNTDWRFSQAQRPGTSGSQNGDDTGTWPNNQFDTEMLQAMILASASEAADGSSTLGGGAGTMGLSARYGPQFTLQHVPDYRQNVYIPGSNATLTNAAGKRDGKAPAGGNGNKKKSGKKEKK}$ 

CAGAAAGCCATGTCGGACTCGGCGCCCAGCGCCCAAGCGCTAACCCGCTGAAAGTTTCTCAGCGAAATCTCAGGG CACCGGGAGGGTAGTGGGAGTTTTGCTTCTGCTTGGTGCCTTGAACAAGGCTTCCACGGTCATTCACTATGAGAT CCCGGAGGAAAGAGAGAGAGGGTTTCGCTGTGGGCAACGTGGTCGCGAACCTTGGTTTGGATCTCGGTAGCCTCTC AGCCCGCAGGTTCCGGGTGTCTTGGAGCTAGCCGAAGATTCTTTGAGGTGAACCGGGAGACCGGAGAGATGTT TGTGAACGACCGTCTGGATCGAGAGGAGCTGTGTGGGACACTGCCCTCTTGCACTGTAACTCTGGAGTTGGTAGT GGAGAACCCGCTGGAGCTGTTCAGCGTGGAAGTGGTGATCCAGGACATCAACGACAACCAATCCTGCTTTCCCTAC CCAGGAAATGAAATTGGAGATTAGCGAGGCCGTGGCTCCGGGGACGCGCTTTCCGCTCGAGAGCGCGCACGATCC CGATGTGGGAAGCAACTCTTTACAAACCTATGAGCTGAGCCGAAATGAATACTTTGCGCTTCGCGTGCAGACGCG GGAGGACAGCACCAAGTACGCGGAGCTGGTGTTGGAGCGCCCCTGGACCGAGAACGGGAGCCTAGTCTCCAGTT GAATGACAATGCGCCTGTCTTCAACCAGTCCTTGTACCGGGCGCGCGTCCTGGAGGATGCACCCTCCGGCACGCG CGTGGTACAAGTCCTTGCAACGGATCTGGATGAAGGCCCCAACGGTGAAATTATTTACTCCTTCGGCAGCCACAA CCGCGCCGGCGTGCGGCAACTATTCGCCTTAGACCTTGTAACCGGGATGCTGACAATCAAGGGTCGGCTGGACTT CGAGGACACCAAACTCCATGAGATTTACATCCAGGCCAAAGACAAGGGCGCCAATCCCGAAGGAGCACATTGCAA AGTGTTGGTGGAGGTTGTGGATGTGAATGACAACGCCCCGGAGATCACAGTCACCTCCGTGTACAGCCCAGTACC GACCTGCGAAGTTCCACCGGGTCTCCCTTTCAGCCTTACTTCTTCCCTCAAGAATTACTTCACTTTGAAAACCAG TGCAGACCTGGATCGGGAGACTGTGCCAGAATACAACCTCAGCATCACCGCCCGAGACGCCGGAACCCCTTCCCT CTCAGCCCTTACAATAGTGCGTGTTCAAGTGTCCGACATCAATGACAACCCTCCACAATCTTCTCAATCTTCCTA CGACGTTTACATTGAAGAAAACAACCTCCCCGGGGCTCCAATACTAAACCTAAGTGTCTGGGACCCCGACGCCCC GCAGAATGCTCGGCTTTCTTTCTTTTCTCTTGGAGCAAGGAGCTGAAACCGGGCTAGTGGGTCGCTATTTCACAAT AAATCGTGACAATGGCATAGTGTCATCCTTAGTGCCCCTAGACTATGAGGATCGGCGGGAATTTGAATTAACAGC TCATATCAGCGATGGGGGCACCCCGGTCCTAGCCACCAACATCAGCGTGAACATATTTGTCACTGATCGCAATGA CAATGCCCCCAGGTCCTATATCCTCGGCCAGGTGGGAGCTCGGTGGAGATGCTGCCTCGAGGTACCTCAGCTGG  $\tt CCACCTAGTGTCACGGGTGGTAGGCTGGGACGCGGATGCAGGGCACAATGCCTGGCTCCTACAGTCTCTTGGG$ ATCCCCTAACCAGAGCCTTTTTGCCATAGGGCTGCACACTGGTCAAATCAGTACTGCCCGTCCAGTCCAAGACAC AGATTCACCCAGGCAGACTCTCACGGTCTTGATCAAAGACAATGGGGAGCCTTCGCTCTCCACCACTGCTACCCT AAAAAATCTCACCTTTTATCTACTTCTTTCTCTAATCCTGGTTTCTGTGGGGTTTGTGGGTCACAGTGTTCGGAGT AATCATATTCAAAGTTTACAAGTGGAAGCAGTCTAGAGACCTATACCGAGCCCCGGTGAGCTCACTGTACCGAAC ACCAGGGCCCTCCTTGCACGCGGACGCCGTGCGGGGAGGCCTGATGTCGCCGCACCTTTACCATCAGGTGTATCT CACCACGGACTCCCGCCGCAGCGACCCGCTGCTGAAGAAACCTGGTGCAGCCAGTCCACTGGCCAGCCGCCAGAA CACGCTGCGGAGCTGTGATCCGGTGTTCTATAGGCAGGTGTTGGGTGCAGAGAGCGCCCCTCCCGGACAGGTAAG TTTTAGTGATGAAGATGTTTTCCTGGTGATGCATTCACACTTTCAACTGGCCCTTCCTAGATCAAAGTTAGTGCC CCTAATTCACATCCTCAGC

MVPEAWRSGLVSTGRVVGVLLLLGALNKASTVIHYEIPEEREKGFAVGNVVANLGLDLGSLSARRFRVVSGASRR
FFEVNRETGEMFVNDRLDREELCGTLPSCTVTLELVVENPLELFSVEVVIQDINDNNPAFPTQEMKLEISEAVAP
GTRFPLESAHDPDVGSNSLQTYELSRNEYFALRVQTREDSTKYAELVLERALDREREPSLQLVLTALDGGTPALS
ASLPIHIKVLDANDNAPVFNQSLYRARVLEDAPSGTRVVQVLATDLDEGPNGEIIYSFGSHNRAGVRQLFALDLV
TGMLTIKGRLDFEDTKLHEIYIQAKDKGANPEGAHCKVLVEVVDVNDNAPEITVTSVYSPVPEDAPLGTVIALLS
VTDLDAGENGLVTCEVPPGLPFSLTSSLKNYFTLKTSADLDRETVPEYNLSITARDAGTPSLSALTIVRVQVSDI
NDNPPQSSQSSYDVYIEENNLPGAPILNLSVWDPDAPQNARLSFFLLEQGAETGLVGRYFTINRDNGIVSSLVPL
DYEDRREFELTAHISDGGTPVLATNISVNIFVTDRNDNAPQVLYPRPGGSSVEMLPRGTSAGHLVSRVVGWDADA
GHNAWLSYSLLGSPNQSLFAIGLHTGQISTARPVQDTDSPRQTLTVLIKDNGEPSLSTTATLTVSVTEDSPEARA
EFPSGSAPREQKKNLTFYLLLSLILVSVGFVVTVFGVIIFKVYKWKQSRDLYRAPVSSLYRTPGPSLHADAVRGG
LMSPHLYHQVYLTTDSRRSDPLLKKPGAASPLASRQNTLRSCDPVFYRQVLGAESAPPGQVRFSKSCLTLLVLFY
SYIILRKEWSCFFSDEDVFLVMHSHFQLALPRSKLVPL

TCGATAGCCGGAAGTCATCCTTGCTGAGGCTGGGGCAACCACCGCAGGTCGAGACAGCAGGCGGCTCAAGTGGAC AGCCGGG<u>ATG</u>GCAGAGCGTGCGGCGCTGGAGGAGCTGGTGAAACTTCAGGGAGAGCGCGTGCGAGGCCTCAAGCA GCAGAAGGCCAGCGCGAGCTGATCGAGGAGGAGGTGGCGAAACTCCTGAAACTGAAGGCACAGCTGGGTCCTGA TGAAAGCAAACAGAAATTTGTGCTCAAAACCCCCAAGGGCACAAGAGACTATAGTCCCCGGCAGATGGCAGTTCG CGAGAAGGTGTTTGACGTAATCATCCGTTGCTTCAAGCGCCACGGTGCAGAAGTCATTGATACACCTGTATTTGA ACTAAAGGAAACACTGATGGGAAAGTATGGGGAAGACTCCAAGCTTATCTATGACCTGAAGGACCAGGGCGGGA GCTCCTGTCCCTTCGCTATGACCTCACTGTTCCTTTTGCTCGGTATTTGGCAATGAATAAACTGACCAACATTAA ACGCTACCACATAGCAAAGGTATATCGGCGGGATAACCCAGCCATGACCCGTGGCCGATACCGGGAATTCTACCA GTGTGATTTTGACATTGCTGGGAACTTTGATCCCATGATCCCTGATGCAGAGTGCCTGAAGATCATGTGCGAGAT  $\tt CCTGAGTTCACTTCAGATAGGCGACTTCCTGGTCAAGGTAAACGATCGACGCATTCTAGATGGGATGTTTGCTAT$ CTGTGGTGTTTCTGACAGCAAGTTCCGTACCATCTGCTCCTCAGTAGACAAGCTGGACAAGGTGTCCTGGGAAGA GGTGAAGAATGAGATGGTGGGAGAGAAGGGCCTTGCACCTGAGGTGGCTGACCGCATTGGGGACTATGTCCAGCA ACATGGTGGGGTATCCCTGGTGGAACAGCTGCTCCAGGATCCTAAACTATCCCAAAACAAGCAGGCCTTGGAGGG CCTGGGAGACCTGAAGTTGCTCTTTGAGTACCTGACCCTATTTGGCATTGATGACAAAATCTCCTTTGACCTGAG GGAAGAGCCCCTGGGTGTGGGCAGTGTGGCTGCTGGAGGACGCTATGATGGGCTAGTGGGCATGTTCGACCCCAA AGGGCGCAAGGTGCCATGTGTGGGGCTCAGCATTGGGGTGGAGCGGATTTTCTCCATCGTGGAACAGAGACTAGA GGCTTTGGAGGAGAAGATACGGACCACGGAGACACAGGTGCTTGTGGCATCTGCACAGAAGAAGCTGCTAGAGGA AAGACTAAAGCTTGTCTCAGAACTGTGGGATGCTGGGATCAAGGCTGAGCTGCTGTACAAGAAGAACCCAAAGCT ACTGAACCAGTTACAGTACTGTGAGGAGGCAGGCATCCCACTGGTGGCTATCATCGGCGAGCAGGAACTCAAGGA TGGGGTCATCAAGCTCCGTTCAGTGACGAGCAGGGAAGAGGTGGATGTCCGAAGAGAAGACCTTGTGGAGGAAAT CAAAAGGAGAACAGGCCAGCCCCTCTGCATCTGC**TGA**ACTGAACAAACTATCAGAGGAAAGGAAGTGGGACTGGC ACTATTTGAGGTTAAGACAAACTGCATATGTACTTCAATTGCTTTGCACTTTTCCGTTTCAGCGGAAGACCTGAA GAGTGGTCAGAACAGAGCCTTTGATTTTATTATGGTTATTTTATTGATTATTACTGGCAAAAACGGCCAGGTAC AACACCTTTTTCATACAAGGCCCAGGAGGCTTAGTCCAGTCTGTGCTCCTGGGCTACAAGGACCCAGCCTGAGAT GGTCCCATCTGCAGGGCCCCGCACCAGTTGGAGCAGATGCCTCCCCACCACCACTAGTTGCCAAAGGTCCAATAAAAT GCCTCAACCACGGAAAAAAAAAAAAAAAAAA

MAERAALEELVKLQGERVRGLKQQKASAELIEEEVAKLLKLKAQLGPDESKQKFVLKTPKGTRDYSPRQMAVREK VFDVIIRCFKRHGAEVIDTPVFELKETLMGKYGEDSKLIYDLKDQGGELLSLRYDLTVPFARYLAMNKLTNIKRY HIAKVYRRDNPAMTRGRYREFYQCDFDIAGNFDPMIPDAECLKIMCEILSSLQIGDFLVKVNDRRILDGMFAICG VSDSKFRTICSSVDKLDKVSWEEVKNEMVGEKGLAPEVADRIGDYVQQHGGVSLVEQLLQDPKLSQNKQALEGLG DLKLLFEYLTLFGIDDKISFDLSLARGLDYYTGVIYEAVLLQTPAQAGEEPLGVGSVAAGGRYDGLVGMFDPKGR KVPCVGLSIGVERIFSIVEQRLEALEEKIRTTETQVLVASAQKKLLEERLKLVSELWDAGIKAELLYKKNPKLLN QLQYCEEAGIPLVAIIGEQELKDGVIKLRSVTSREEVDVRREDLVEEIKRRTGQPLCIC

ACGCAAAGCAGTGTGGGTTGATTCTGAGGTGCACTGTGGGAAAGAGCTTGTCGCTGCGGTGTTGCTGTTGGAGAC  ${\tt TCGATTGTTGGTGACAGCGAAAGAACGATAACAAA} \underline{{\tt ATG}} {\tt CCGGAGCGAGATAGTGAGCCGTTCTCCAACCCTTTGG}$ CCCCGATGGCCACGATGTGGATGATCCTCACTCCTTCCACCAATCAAAACTCACCAATGAAGACTTCAGGAAAC TTCTCATGACCCCCAGGGCTGCACCTACCTCTGCACCACCTTCTAAGTCACGTCACCATGAGATGCCAAGGGAGT ACAATGAGGATGAAGACCCAGCTGCACGAAGGAGGAAAAAGAAAAGTTATTATGCCAAGCTACGCCAACAAGAAA TTGAGAGAGAGAGAGCTAGCAGAGAAGTACCGGGATCGTGCCAAGGAACGGAGAGATGGAGTGAACAAAGATT ATGAAGAAACCGAGCTTATCAGCACCACAGCTAACTATAGGGCTGTTGGCCCCACTGCTGAGGCGGACAAATCAG  $\verb|CTGCAGAGAAGAAGACAGTTGATCCAGGAGTCCAAATTCTTGGGTGGTGACATGGAACACCCCATTTGGTGA|\\$ AAGGCTTGGATTTTGCTCTGCTTCAAAAGGTACGAGCTGAGATTGCCAGCAAAGAGAAAGAGGAAGAGGAACTGA TGGAAAAGCCCCAGAAAGAAACCAAGAAAGATGAGGATCCTGAAAATAAAATTGAATTTAAAACACGTCTGGGCC GCAATGTTTACCGAATGCTTTTTAAGAGCAAAGCATATGAGCGGAATGAGTTGTTCCTGCCGGGCCGCATGGCCT ATGTGGTAGACCTGGATGATGAGTATGCTGACACAGATATCCCCACCACTCTTATCCGCAGCAAGGCTGATTGCC  $\verb|CCACCATGGAGGCCCAGACCACACTGACCACAAATGACATTGTCATTAGCAAGCTGACCCAGATCCTTTCATACC| \\$ TGAGGCAGGGAACCCGTAACAAGAAGCTTAAGAAGAAGGATAAAGGGAAGCTGGAAGAAGAAACCTCCTGAGG CTGACATGAATATTTTTGAAGACATTGGGGATTACGTACCCTCCACAACCAAGACACCTCGGGACAAGGAGCGGG AGAGATATCGGGAACGGGAGCGTGATCGGGAAAGAGACAGAGACCGTGACCGAGAGCGAGAGCGAGAACGAGATC TAGATGATGAGCCCATGGACGTTGACAAAGGACCTGGGTCTACCAAGGAGTTGATCAAGTCCATCAATGAAAAGT TTGCTGGGTCTGGCTGGGAAGGCACAGAATCGCTGAAGAAGCCAGAAGACAAAAAAGCAGCTGGGAGATTTCT TGGATTATAGCAAAATGGACCAGGGTAACAAGAAGGGGCCCTTAGGCCGTTGGGACTTTGATACCCAGGAAGAAT ACAGCGAGTATATGAACAACAAGAAGCTTTGCCCAAGGCTGCATTCCAGTATGGTATCAAAATGTCTGAAGGGC GGAAAACCAGGCGCTTCAAGGAAACCAATGACAAAGCAGAGCTTGATCGCCAGTGGAAGAAGATTAGTGCAATCA TTGAGAAGAGGAAGATGGAAGCTGATGGGGTTGAAGTCAAAAGACCAAAATAC<u>TAA</u>

MPERDSEPFSNPLAPDGHDVDDPHSFHQSKLTNEDFRKLLMTPRAAPTSAPPSKSRHHEMPREYNEDEDPAARRR KKKSYYAKLRQQEIERERELAEKYRDRAKERRDGVNKDYEETELISTTANYRAVGPTAEADKSAAEKRRQLIQES KFLGGDMEHTHLVKGLDFALLQKVRAEIASKEKEEEELMEKPQKETKKDEDPENKIEFKTRLGRNVYRMLFKSKA YERNELFLPGRMAYVVDLDDEYADTDIPTTLIRSKADCPTMEAQTTLTTNDIVISKLTQILSYLRQGTRNKKLKK KDKGKLEEKKPPEADMNIFEDIGDYVPSTTKTPRDKERERYRERERDRERDRDRDRDRERERERDRERE EEKKRHSYFEKPKVDDEPMDVDKGPGSTKELIKSINEKFAGSAGWEGTESLKKPEDKKQLGDFFGMSNSYAECYP ATMDDMAVDSDEEVDYSKMDQGNKKGPLGRWDFDTQEEYSEYMNNKEALPKAAFQYGIKMSEGRKTRRFKETNDK AELDRQWKKISAIIEKRKKMEADGVEVKRPKY

# FIGURE 1783

GTGACCCCAGGCCCTGGTCACTCCATGCTTTGGAGGGTGCTTTTGTCAAAGAGGCCTCCTTTCCCTCACCCAGAG GCTGCCCGAGGAAGGAGCCCACAGGTGACAGGGAGAAGCCATTGCCATTCCCTGTCCTGGCCCCCTTCAGCAAC CCTGAACACTCTGCTCCAGCCAAGGTGGTGAGGGCAGCTGTTCCTAAACAGCGCAAAGGCAGCAAAGGTTGGTGAC TTTGGAGATGCAATCAATTGGCCCACACCTGGAGAGATAGCCCACAAGAGTGTTCAGCCACAGTCCCACAAGCCT CAGCCTACCCGTAAACTGCCACCCAAGAAGGACATGAAGGAACAGGAGAAAGGAGAGGAGTGATAGTAAGGAG AGTCCAAAAACCAAATCAGATGAATCAGGGGAGGAAAAGAATGGAGATGAGGATTGCCAGCGAGGCGGGCAGAAG AAGAAAGGAAACAAACAAGTGGGTTCCATTACAAATAGACATGAAGCCTGAAGTGCCCAGAGAGAAACTGGCT TCACGCCCCACTCGCCCACCGGAGCCTAGACACATACCTGCCAATCGCGGAGAGATCAAAGGGTCTGAGTCTGCC GGTCGCGGCCGGGACGCCGGGGTGGCACTCGAACCCATTTTGACTACCAGTTTGGCTACCGAAAGTTTGAT GGTGTGGAGGGGCCTCGTACGCCCAAGTACATGAACAACATCACCTACTACTTTGACAATGTCAGCAGCACCGAG CTTTACAGTGTGGATCAGGAACTGCTCAAAGACTACATCAAGCGCCAGATTGAATACTACTTCAGCGTGGACAAT CACCGAGTGCAGGCCCTTACCACTGACATTTCACTCATCTTTGCGGCCCTAAAGGACAGCAAGGTGGTGGAGATC GTTGATGAGAAGTTCGTAGGAGGGAGGAACCAGAAAAGTGGCCTCTTCCCCCAATAGTGGATTATTCACAGACT GATTTCTCCCAGCTTCTCAACTGCCCTGAATTTGTTCCCCGTCAGCACTACCAAAAGGAGACAGAGTCGGCACCT GGCTCTCCTCGTGCAGTCACCCAGTGCCAACCAAAACAGAGGAGGTCAGCAACCTAAAGACACTACCCAAGGGC CTGTCTGCCAGCCTGACCTGGATTCTGAGAACTGGATTGAAGTGAAGAGAGGCCTCGGCCATCCCCAGCA CGGCCCAAGAAGTCAGAGGAGTCCAGATTTTCCCACCTGACCTCTCTGCCTCAGCAGCTGCCTTCCCAGCAGCTG AAGAACACCTTCACTGCCTGGTCTGATGAGGAATCTGACTATGAGATTGATGACAGGGATGTCAACAAGATCCTC AAGATGAGCGCCGAACTGGCCAAGGTCATTAATGATGGCCTCTTCTACTATGAGCAGGACCTGTGGGCTGAAAAG TTTGAACCTGAGTATTCCCAGATCAAGCAAGAAGTCGAGAACTTCAAAAAGGTCAATATGATCAGCCGGGAGCAG TTTGACACTGACCCCTGAGCCCCCTGTGGATCCCAACCAGGAAGTTCCTCCTGGGCCACCTCGGTTCCAGCAA GTTCCTACGGATGCCCTGGCCAACAAGTTGTTTGGTGCTCCTGAGCCCTCCACCATCGCCCGCTCTCTACCAACC ACTGTCCCAGAGTCACCAAACTACCGCAACACCAGGACCCCTCGCACTCCCCGGACACCACAGCTCAAAGACTCA ACAAGACACAGTTCAAACCCACCCTTGGAGAGCCATGTGGGCTGGGTGATGGATTCCCGTGAGCACAGGCCCCGT TGACCAATGCTCTCTACTCCCTGCAGAGATGGCACAGACTGCAAATAGGCATGCTTTTGAAGAAAATATACAATT GATCTTTGAACAACGAAGGGCGTGGGGTGCCCAGCTGCACACAGTTGAAAATCCGTGTATAACTTTTGACTCTCC AAAAGCCTACTGTTAACCAGAAGCCTTACCAATAACATATAGTCAATTAGCACATGTTTTGCATATTATATGTAT TACATACTGTATTCTTACAATAAGCTAAATAA

# FIGURE 1784

MKEQEKGEGSDSKESPKTKSDESGEEKNGDEDCQRGGQKKKGNKHKWVPLQIDMKPEVPREKLASRPTRPPEPRH
IPANRGEIKGSESATYVPVAPPTPAWQPEIKPEPAWHDQDETSSVKSDGAGGARASFRGRGRGRGRGRGRGRGGGT
RTHFDYQFGYRKFDGVEGPRTPKYMNNITYYFDNVSSTELYSVDQELLKDYIKRQIEYYFSVDNLERDFFLRRKM
DADGFLPITLIASFHRVQALTTDISLIFAALKDSKVVEIVDEKVRRREEPEKWPLPPIVDYSQTDFSQLLNCPEF
VPRQHYQKETESAPGSPRAVTPVPTKTEEVSNLKTLPKGLSASLPDLDSENWIEVKKRPRPSPARPKKSEESRFS
HLTSLPQQLPSQQLMSKDQDEQEELDFLFDEEMEQMDGRKNTFTAWSDEESDYEIDDRDVNKILIVTQTPHYMRR
HPGGDRTGNHTSRAKMSAELAKVINDGLFYYEQDLWAEKFEPEYSQIKQEVENFKKVNMISREQFDTLTPEPPVD
PNQEVPPGPPRFQQVPTDALANKLFGAPEPSTIARSLPTTVPESPNYRNTRTPRTPRTPQLKDSSQTSRFYPVVK
EGRTLDAKMPRKRKTRHSSNPPLESHVGWVMDSREHRPRTASISSSPSEGTPTVGSYGCTPQSLPKFQHPSHELL
KENGFTQHVYHKYRRCLNERKRLGIGQSQEMNTLFRFWSFFLRDHFNKKMYEEFKQLALEDAKEGYRYGLECLF
RYYSYGLEKKFRLDIFKDFQEETVKDYEAGQLYGLEKFWAFLKYSKAKNLDIDPKLQEYLGKFRRLEDFRVDPPM
GEEGNHKRHSVVAGGGGGGEGRKRCPSQSSSRPAAMISQPPTPPTGQPVREDAKWTSQHSNTQTLGK

 ${\tt GGCACGAGGGAAGAGCTCCCACCTTCTCTGGATGTGCCTGGGCTTGGACTGGCTAGAATCTTTCTCTGGACTGTT}$ GCATGTACAGTGCCTCCATCCTGGAGGCAAGAGAGTTGGGAGTGGCTCGAATCAGAGCCGTGCCCAAGATATCCC GTTGCCTCACGCCAGGCCCCGTCCTGCCGTGACACCCTTCATCCTACCCTTGGAACCCCAAGGCCAAGTTGGTTC AAACTGTTGGAGAACAGAGTTGGCCTGCATCTGGAACACACTTGTCCTCAGCTTACCATCTCCTCACACCCCAGA GTGGAAAGGTGAACACCTGCAGCTGAGGCTTGGAAACGTTTCTTGTGTTGCCCTGAAAAATCTTTGAGACCTCAG GGAGGCTCTGTCTCTTAAAAGGTGGAGAAAGATGCCATTCTCTCCCTAAGGTCTGGTGGAGTCTCCCCATCTT GCATACCCTTCTGCAAGCCATCTATCTCTGCTCACTCTCCAATTGACCCGCCTGGGAACAAGGGATGAGGAGGAG TTGGGGGCTGGGGGGAATCCTGCCAGTTGGTGAAGCCCTGTGGCAGGAAGGTATATGTGGACATAGAGTATACCT GATTCTCTTTCTTCAGCCACTGACTGCTTGGGTTGGGCTGTGAATGATAATGGAATGGCTGGAGTCTGCTGTTGT CTTTTCAACTGGTTCCTCTGTTGGGCCCAAAGGTTGGGAGTAGGAGACAGTATCCCAGGCTGACAAGGGCTTGCC GAAGCCCÁTCTCAGTTCCTGTGACTTCATGTCTCAAACCAAGGATGAGCGTCTGGTCTCTGCTATGATGGTGGTA TCCGAGGCCTTTCCCTGCCCAGTCTGGTGCCTGCCCCACATTGTACCGGACACTGGATTCCTGGACCCCCTTCTC CTTTCCTTTCTTCCTTCAGGTCACGCAGCCCTGTACTGTATCCAGCACCACAGAAACCTCAGTGTTTTTCCTCT GCTGGTTTGGGGCACAAGGAAGCCTTAGGGTATGGGGAAAGGCTGTTATTACCTAGAGTTTACTCCCAGGCCAGG GGGCTGCCATCTTCTTCACAGACATCCCTGAAAGGAAGCCCCTTTGGGGCAGGGAGGTGAGGACTTCATCTCAAC GTAACATGTTAGGAGTTAATGTTGCAAAGAGTAGTTTACATCTTCACTTTCTGAAGACACTTGAATTTAGGACCG ATGTATCTGTGACAAGCATGCCAGAAGTGGCAGGGGCCATCAGGGCTAACCACTTCACACCTACCATCGTCCCAT GGGGATCCAAGACCTGAGATAAAGCAACAGCCTGCCCAGATCCCTCTGTTCATCCTATCCCTTCCAAGGTTGGTC CATGCCAACATAACCTCTGGGCATCAGACATCAGCAGGTCTGTGTGCCTCAGCCCTGTTAAGGGGCAGGTTTCTC TTTAGCCCTCTTCCTGCACTTGGGAGCAAAGGCACTACCAGTAGAAAGGGCCATCCAGCCGTGCCCCAGCCTGG ACCCCTGGGGCTCAGATAGAGGTGCTGAGCCCCTGTGTCAAAGTTGTTAAATGTTTTTGTTTTGTTCCATTGTAG GAAGTGAGGAGGAGGACAAGGAAGATGACTAGTTACGGAGGGTGAGGGTTGTTTTTTGCCAAAAAAGCCTGGGTA GAGTGATCTGAATTATCTGGCACCCTCCTGAATGGAACCCCAGAGTACCTCCTGTGTGGAAGGGTCCCTGGATTT TCCCTAACACCCACCCTCTCCCCCTTCAGCCATGCTGATGGCAGAGAAGATAAGAACTTGGAGCCCATTTCTCAC TGGAGAGGAAAACTTGTCATCTGGCTTTGCGGAGAAGGTTCCACCTTACGCTCGTAGTACATTATCTTTACTATG TGCTAGGATATCATATTTAAAAGGACAAAAAAATGTAAAATACTTGAATGAGCTTGTATTATAACATTAATATTA AA

 ${\tt MLGVNVAKSSLHLHFLKTLEFRTDVSVTSMPEVAGAIRANHFTPTIVPWGSKT}$ 

# FIGURE 1787

GCGGTCTTATATAAGCCAGATCCGCAGGGGAGTCCGCAGAAGGGTTAAACAGGTCTTTGGGCTTCGGCGACCTCG CCCGCGGCAGAAACCGGTAAGAAGACAGTGGGCTGCGCGTCTCATTTTCAGCCTTGCCCGGACTCTCCCAAAGCC GGCGCCCAGTAGTGGCTCCAGAGCCCACAGGTGGCCCCCGGCAGTCTCTGGGGCCGCATGGAGCGGCGTTAATAGG GCTGGCGGCGCAGGCCAGTAGCCGCTCCAACATGAACCTCGTGGGCAGCTACGCACCATCACCATCACCA CCCGCACCCTGCGCACCCCATGCTCCACGAACCCTTCCTCTTCGGTCCGGCCTCGCGCTGTCATCAGGAAAGGCC CGCTGCAGCCGCCACCGCCTATGGTCCTGACGCCAGGCCTGGGCAGAGCCCCGGGCGGCTGGAGGCGCTTGGCGG CCGTCTTGGCCGGCGGAAAGGCTCAGGACCCAAGAAGGAGCGGAGACGCACTGAGAGCATTAACAGCGCATTCGC GGAGTTGCGCGAGTGCATCCCCAACGTGCCGGCCGACACCAAGCTCTCCAAGATCAAGACTCTGCGCCTAGCCAC CAGCTACATCGCCTACCTGATGGACGTGCTGGCCAAGGATGCACAGTCTGGCGATCCCGAGGCCTTCAAGGCTGA ACTCAAGAAGGCGGATGGCGGCCGTGAGAGCAAGCGGAAAAGGGAGCTGCAGCAGCACGAAGGTTTTCCTCCTGC CCTGGGCCCAGTCGAGAAGAGGATTAAAGGACGCACCGGCTGGCCGCAGCAAGTCTGGGCGCTGGAGTTAAACCA CGAACGCCAGGCTCTGGGCTCCGGCGACTGGTGCTACGCATCCCGCGGAGCTTCTGCTGAGCGCCGGCAGGTCGT ATATATATATCCACCCCAGCCCAACCGAGGGCGGCCCTTGGCGGCAACATGCAAGAAGGAGGGACTGTCGAACC CAAGGGCTCAAAGACGCACTCTTCCACCCTTTTGGAGCGAATTTAGAACCTCAGCCCTATCTCCATTTCCCTATC TGGCTCTTTCTCTCTTGTCCCTCCATATGATCCGCCCCGACGCCGTCTTCTCTAATTAAAATGCAATAAGGAATC AATTCTTTCTTGCCTGAGAAAGAGAACCAGACGCAGGAAGATGAAAGGCTGCCCTTTGTTCTTCGAATCGTGGT ACCTCAAGTCTGTGTGACCACTCACAGCCCCCCTCCCTTCGCCAAAGCAGTGTCTATGCTCTTGATTAATAAAAC ATTITCTGAAATCAAAAAAAAAAAAA

 $\label{thm:local_milk} \begin{milk} Mnlvgsyahhhhhhhhhhhhhphpahpmlhepflfgpasrchqerpyfqswllspadaapdfpaggpppaaaaaataygpd arpgqspgrlealggrlggrkgsgpkkerrrtesinsafaelrecipnvpadtklskiktlrlatsylaylmdvlakdaqsgdpeafkaelkkadggreskrkrelqqhegfppalgpvekrikgrtgwpqqvwalelnq$ 

ATGCACTATTCTAAGGAATATAGGCAGATGTACAGAACTGAAATTCGAATGACAAGGATGGCAAGAAAAGCTGGCAACTTCTATGTACCTGCAGAACCCAAATTGGAGTTTGTCATCAGGATCAGAGGTATCAATGGTGATCAGATTCATAAGATCTATACTGTTGGAAAACGCTTCAAAGAAGCAAATAACTTTCTGTGGCCCTTCAAATTACCTTTTCCACCAAGCAGAGTGAAGAAAAAAGACCACTTATTTTGTAGAAGGTGGAAATGCTGGCAACAGGGAGGACCAGATCAACAGGCCTTATTAGAAGAAGAATGAACTAA

MHYSKEYRQMYRTEIRMTRMARKAGNFYVPAEPKLEFVIRIRGINGDQIHKIYTVGKRFKEANNFLWPFKLPFPPGRVKKKTTYFVEGGNAGNREDQINRLIRRMN

GATCAGGGCCGAGTTGTCTCGGCGGCGCTGCCGAGGCCTCCACCCAGGACAGTCCCCCTCCCCGGGCCTCTCTCC TCTTGCCTACGAGTCCCCTCTCCTCGTAGGCCTCTCGGATCTGATATCGTGGGGTGAGGTGAGCAGGCCCGGGGA  ${\tt GGGTGGTTACCGCTGAGGAGCTGCAGTCTCTGTCAAG} \underline{{\tt ATG}} {\tt ATAGAGGTACTGACAACAACTGACTCTCAGAAACT}$ GCTACACCAGCTGAATGCCCTGTTGGAACAGGAGTCTAGATGTCAGCCAAAGGTCTGTGGTTTGAGACTAATTGA GTCTGCACACGATAATGGCCTCAGAATGACTGCAAGACTAAGGGACTTTGAAGTAAAAGATCTTCTTAGTCTAAC TCAGTTCTTTGGCTTTGACACAGAGACATTTTCTCTAGCTGTGAATTTACTGGACAGATTCCTGTCTAAAATGAA GGTACAGCCCAAGCACCTTGGGTGTGTTGGACTGAGCTGCTTTTATTTGGCTGTAAAATCAATAGAAGAGGAAAG GAATGTCCCATTGGCAACTGACTTGATCCGAATAAGTCAATATAGGTTTACGGTTTCAGACTTGATGAGAATGGA AAAGATTGTATTGGAGAAGGTGTGTTGGAAAGTCAAAGCTACTACTGCCTTTCAATTTCTGCAACTGTATTATTC ACTCCTTCAAGAGAACTTGCCACTTGAAAGGAGAAATAGCATTAATTTTGAAAGACTAGAAGCTCAACTGAAGGC ATGTCATTGCAGGATCATATTTTCTAAAGCAAAGCCTTCTGTGTTGGCATTGTCTATCATTGCATTAGAGATCCA AGCACAGAAGTGTGTAGAGTTAACAGAAGGAATAGAATGTCTTCAGAAACATTCCAAGATAAATGGCAGAGATCT GACCTTCTGGCAAGAGCTTGTATCCAAATGTTTAACTGAATATTCATCAAATAAGTGTTCCAAACCAAATGTTCA GAAGTTGAAATGGATTGTTTCTGGGCGTACTGCACGGCAATTGAAGCATAGCTACTACAGAATAACTCACCTTCC AACAATTCCTGAAATGGTCCCTTAACTGGATTATTACAGCACCAAAAAACTTCTCTGAAGCCTTTCTCCACAAACC TTGTTCTATGGATTCCATAATGTTACAATGGATTTAAGCTATGAAGCCTCAAAACATCACGAGATAAGCATGATG GTCTCAGACTTGGGAAAACTGCCTAATATTATGCTGTAGTGGAATTATGTTTATGATTTGAATTCATCTGTGAAG GCATTCAAATCAAAGCTAAAAGCCTAAATGTGAAATGCTAATGACAAGCCTGAGAAGGTAAACTATGAATCTTCA TTTCTATCATTGATCTAACTTTAGATATTTGGATCAATATTTTAGGTGGTATTGAAAATGCTATTGGAGGAGTCA CACTAATACTATCAACTATCAGTCTTCCCACAGCTTCAATCACTGTCATTATTCTAATCCTACTCCTACTTAAAT TTTAAGTTATGAGGTTTATGTCGAAAGCAACATTTCACAAATGTACTTTTAAGGCATAATAAGGGTTAACATTCT AGG

MIEVLTTTDSQKLLHQLNALLEQESRCQPKVCGLRLIESAHDNGLRMTARLRDFEVKDLLSLTQFFGFDTETFSL AVNLLDRFLSKMKVQPKHLGCVGLSCFYLAVKSIEEERNVPLATDLIRISQYRFTVSDLMRMEKIVLEKVCWKVK ATTAFQFLQLYYSLLQENLPLERRNSINFERLEAQLKACHCRIIFSKAKPSVLALSIIALEIQAQKCVELTEGIE CLQKHSKINGRDLTFWQELVSKCLTEYSSNKCSKPNVQKLKWIVSGRTARQLKHSYYRITHLPTIPEMVP

### 1951/6881 FIGURE 1793A

GTAGAGTTAAGGAAGGGCCTCTTCCTCTGTGAGAATTCAGCATTTTGCAACCATCCAAAAATGTTGAGGGCATGC TTTGCTTCCAGGGCAGACAGAGCAGCACAGTGAGCATGGGACACAGGATCCCTGACTTGCTGTGTGCCCTTAAAC CAACGTGGACCTGCTTGAAGAGCTTCCCCTCCCGACCAGCAGCCATGCATCGAGCCTCCACCTTCCTCCATCAT GTACCAGGCTAACTTTGACACAAACTTTGAGGACAGGAATGCATTTGTCACGGGCATTGCAAGGTACATTGAGCA CAGCTGTTCCCGGGCCATTCCCAGGTGAAATGCAACGAGCAGCCCAACCGAGTAGAGATCTATGAGAAGACAGTA GAGGTGCTGGAGCCGGAGGTCACCAAGCTCATGAAGTTCATGTATTTTCAGCGCAAGGCCATCGAGCGGTTCTGC AAGTTCATCAACATGTTTGCTGTCCTGGATGAGCTAAAGAACATGAAGTGCAGCGTCAAGAATGACCACTCTGCC TACAAGAGGGCAGCACAGTTCCTGCGGAAGATGGCAGATCCCCAGTCTATCCAGGAGTCGCAGAACCTTTCCATG TTCCTGGCCAACCACAACAGGATCACCCAGTGTCTCCACCAGCAACTTGAAGTGATCCCAGGCTATGAGGAGCTG CTGGCTGACATTGTCAACATCTGTGTGGATTACTACGAGAACAAGATGTACCTGACTCCCAGTGAGAAACATATG AAGAGAATTAATCTTAGCAAAATTGATAAATTCTTTAAGCAGCTGCAGGTGGTGCCCCTTTTCGGCGACATGCAG ATAGAGCTGGCCAGATACATTAAGACCAGTGCTCACTATGAAGAGAACAAGTCCAAGTGGACGTGCACCCAGAGC AGCATCAGCCCCCAGTACAATATCTGCGAGCAGATGGTTCAGATCCGGGATGACCACATCCGCTTCATCTCCGAG CTCGCTCGCTACAGCAACAGTGAGGTGGTGACGGGCTCAGGGCTGGACAGCCAGAAGTCAGACGAGGAGTATCGC GAGCTCTTCGACCTAGCCCTGCGGGGTCTGCAGCTTCTATCCAAGTGGAGCGCCCACGTCATGGAGGTGTACTCT TGGAAGCTGGTTCATCCCACAGACAAGTTCTGCAACAAGGACTGTCCTGGCACCGCGGAGGAATATGAGAGAGCC ACACGCTACAATTACACCAGTGAGGAAAAATTTGCCTTCGTTGAGGTGATCGCCATGATCAAAAGGCCTGCAGGTG CTCATGGGCAGGATGGAGAGCGTCTTCAACCAGGCCATCAGGAACACCATCTACGCGGCATTGCAGGACTTCGCC CAGGTGACGCTGCGTGAGCCCCTGCGGCAGGCGGTACGGAAGAAGAATGTCCTCATCAGCGTCCTACAGGCA ATTCGAAAGACCATCTGTGACTGGGAGGGAGGGCGAGAGCCCCCTAATGACCCATGCTTGAGAGGGGAGAAGGAC CCCAAAGGTGGATTTGATATCAAGGTGCCCCGGCGTGCTGTGGGGCCCATCCAGCACACAGCTGTACATGGTGCGG GTCCTCGCCATAGAGGACTTTCACAAACAGTCCTTCTTCTTCACACATCTGCTCAACATCAGTGAAGCCCTGCAG CAGTGTTGTGACCTCTCCCAGCTCTGGTTCCGAGAATTCTTCCTGGAGTTAACCATGGGCCGACGAATCCAGTTC CCCATCGAGATGTCCATGCCCTGGATTCTAACGGACCATATCCTGGAAACCAAAGAACCTTCCATGATGGAGTAT GTCCTCTACCCTCTGGATCTGTACAACGACAGCGCCTACTATGCTCTGACCAAGTTTAAAAAGCAGTTCCTGTAC GATGAGATAGAAGCTGAGGTGAACCTGTGTTTTGATCAGTTTGTCTACAAGCTGGCAGACCAGATCTTTGCTTAC TACAAAGCCATGGCTGGCAGTGTCCTGTTGGATAAACGTTTTCGAGCTGAGTGTAAGAATTATGGCGTCATCATT CCGTATCCACCGTCCAATCGCTATGAAACACTGCTGAAGCAGAGACACGTCCAGCTGTTGGGTAGATCAATTGAC TTGAACAGACTCATTACCCAGCGCATCTCTGCCGCCATGTATAAATCCTTGGACCAAGCTATCAGCCGCTTTGAG AGTGAGGACCTGACCTCCATTGTGGAGCTGGAGTGGCTGCTGGAGATTAACCGGCTCACGCATCGGCTGCTCTGT AAGCATATGACGCTGGACAGCTTCGATGCCATGTTCCGAGAGGCCAATCACAATGTGTCCGCCCCCTATGGCCGT ATCACCCTGCATGTCTTCTGGGAACTGAACTTTGACTTTCTCCCCAACTACTGCTACAATGGGTCCACTAACCGT TTTGTGCGGACTGCCATTCCTTTCACCCAAGAACCACAACGAGACAAACCTGCCAACGTCCAGCCTTATTACCTC TATGGATCCAAGCCTCTCAACATTGCCTACAGCCACATCTACAGCTCCTACAGGAATTTCGTGGGGCCACCTCAT TTCAAGACTATCTGCAGACTCCTGGGTTATCAGGGCATCGCTGTGGTCATGGAGGAACTGCTAAAGATTGTGAAG AGCTTGCTCCAAGGAACCATTCTCCAGTATGTGAAAACACTGATAGAGGTGATGCCCAAGATATGCCGCTTGCCC CGACATGAGTATGGCTCCCCAGGGATCCTGGAGTTCTTCCACCACCAGCTGAAGGACATCATTGAGTACGCAGAG CTCAAAACAGACGTGTTCCAGAGCCTGAGGGAAGTGGGCAATGCCATCCTCTTCTGCCTCCTCATAGAGCAAGCT CTGTCTCAGGAGGAGGTCTGCGATTTGCTCCATGCCGCACCCTTCCAAAACATCTTGCCTAGAGTCTACATCAAA GAGGGGGAGCCCTGGAGGTCCGGATGAAACGTCTGGAAGCCAAGTATGCCCCGCTCCACCTGGTCCCTCTGATC GAGCGGCTGGGGACCCCTCAGCAAATCGCCATTGCTCGCGAGGGTGACCTCCTGACCAAGGAGCGGCTGTGCTGT GGCCTGTCCATGTTCGAGGTCATCCTGACCCGCATTCGGAGCTACCTGCAGGACCCCATCTGGCGGGGCCCACCG

#### 1952/6881 FIGURE 1793B

# FIGURE 1794

MKFMYFQRKAIERFCSEVKRLCHAERRKDFVSEAYLLTLGKFINMFAVLDELKNMKCSVKNDHSAYKRAAQFLRK MADPQSIQESQNLSMFLANHNRITQCLHQQLEVIPGYEELLADIVNICVDYYENKMYLTPSEKHMLLKVMGFGLY LMDGNVSNIYKLDAKKRINLSKIDKFFKQLQVVPLFGDMQIELARYIKTSAHYEENKSKWTCTQSSISPQYNICE QMVQIRDDHIRFISELARYSNSEVVTGSGLDSQKSDEEYRELFDLALRGLQLLSKWSAHVMEVYSWKLVHPTDKF CNKDCPGTAEEYERATRYNYTSEEKFAFVEVIAMIKGLQVLMGRMESVFNQAIRNTIYAALQDFAQVTLREPLRQ AVRKKKNVLISVLQAIRKTICDWEGGREPPNDPCLRGEKDPKGGFDIKVPRRAVGPSSTQLYMVRTMLESLIADK SGSKKTLRSSLDGPIVLAIEDFHKQSFFFTHLLNISEALQQCCDLSQLWFREFFLELTMGRRIQFPIEMSMPWIL TDHILETKEPSMMEYVLYPLDLYNDSAYYALTKFKKQFLYDEIEAEVNLCFDQFVYKLADQIFAYYKAMAGSVLL DKRFRAECKNYGVIIPYPPSNRYETLLKQRHVQLLGRSIDLNRLITQRISAAMYKSLDQAISRFESEDLTSIVEL EWLLEINRLTHRLLCKHMTLDSFDAMFREANHNVSAPYGRITLHVFWELNFDFLPNYCYNGSTNRFVRTAIPFTQ EPQRDKPANVQPYYLYGSKPLNIAYSHIYSSYRNFVGPPHFKTICRLLGYQGIAVVMEELLKIVKSLLQGTILQY VKTLIEVMPKICRLPRHEYGSPGILEFFHHQLKDIIEYAELKTDVFQSLREVGNAILFCLLIEQALSQEEVCDLL HAAPFQNILPRVYIKEGERLEVRMKRLEAKYAPLHLVPLIERLGTPQQIAIAREGDLLTKERLCCGLSMFEVILT RIRSYLQDPIWRGPPPTNGVMHVDECVEFHRLWSAMQFVYCIPVGTNEFTAEQCFGDGLNWAGCSIIVLLGQQRR FDLFDFCYHLLKVQRQDGKDEIIKNVPLKKMADRIRKYQILNNEVFAILNKYMKSVETDSSTVEHVRCFQPPIHQ SLATTC

MATLIYVDKENGEPGTRVVÅKDGLKLGSGPSIKALDGRSQVSTPRFGKTFDAPPALPKATRKALGTVNRATEKSV KTKGPLKQKQPSFSAKKMTEKTVKAKSSVPASDDAYPEIEKFFPFNPLDFESFDLPEEHQIAHLPLSGVPLMILD EERELEKLFQLGPPSPVKMPSPPWESNLLQSPSSILSTLDVELPPVCCDIDI

ATGGCCCTGGAGTTTCTCCCTCAGACTAAGAACCATCCACCAGTAGCAGAAACTACATCCTCAGGGGGGGTTTTC
TTCGTGAATGCAAATGTCCCGGCACCTAAACGGTTCACATTACCGCAGGTGATTTCTGCAGCTGTAACTAAGTTC
CATCCTCAGCAAGAATCAGAACCACCAGAGACAGAGCAGAGAGACACCATGCCCTCACTTGCGAGAGTTCAAATG
GCACTTTCTTGGAAAAAGAAGATTGGGTGTTCACAGCTTTCTGAGCAACAACGATACAAAGTGGATGCAATTCAT
CCATCGTCTCTGAAAAGTCTTCGACCATTGCATGAGATTGTAGAGGAAGACAGGCACAGGAAGACCAAACAGCGT
GTAGAGGATACGAAGATTGGCTACCCAACTGTTGCATCAGTACCCCATTCTATCATCAACGGGTACAAACGAGTC
CTGGCCTTGTCTGTGGAGACGGATTACACCTTCCCACTCGCTGAAAAGGTCAAGGCCTTCTTGGCTGATCCATCT
GCCTTTGGCTTTGATGTTTCAAGCAATGCTGGGTCAACCCAACCACTCAGCACATTCACTGGACCTGGTCGTGCC
CAAGCTCCTCCACTGCATGATTCAGAGTTGAGATAG

### 1957/6881 FIGURE 1798A

GCAACTGGACAACAACCACATCAGCTGCATTGAAGATGGAGCCTTCCGAGCGCTGCGCGATTTGGAGATCCTTAC CCTCAACAACAACAACATCAGTCGCATCCTGGTCACCAGCTTCAACCACATGCCGAAGATCCGAACTCTGCGCCT CCACTCCAACCACCTGTACTGCGACTGCCACCTGGCCTGGCTCTCGGATTGGCTGCGACAGCGACAGTTGG  ${\tt CCAGTTCACACTCTGCATGGCTCCTGTGCATTTGAGGGGGCTTCAACGTGGCGGATGTGCAGAAGAAGAAGGAGTACGT}$ GTGCCCAGCCCCCACTCGGAGCCCCCATCCTGCAATGCCAACTCCATCTCCTGCCCTTCGCCCTGCACGTGCAG CAATAACATCGTGGACTGTCGAGGAAAGGGCTTGATGGAGATTCCTGCCAACTTGCCGGAGGGCATCGTCGAAAT ACGCCTAGAACAGAACTCCATCAAAGCCATCCCTGCAGGAGCCTTCACCCAGTACAAGAAACTGAAGCGAATAGA GTATGGGAACAAGATCACCGAGATTGTCAAGGGACTGTTTGATGGGCTGGTGTCCCTACAGCTGCTCCTCAA TGCCAACAAGATCAACTGCCTGCGGGTGAACACGTTTCAGGACCTGCAGAACCTCAACTTGCTCTCCCTGTATGA GGGCACGATTGTGGACTGCTCCAACCAGAAGCTGGTCCGCATCCCAAGCCACCTCCCTGAATATGTCACCGACCT GCGACTGAATGACAATGAGGTATCTGTTCTGGAGGCCACTGGCATCTTCAAGAAGTTGCCCAACCTGCGGAAAAT GCTGACAGGGAACCAGCTGGAGACCGTGCACGGGCGCGTGTTCCGTGGCCTCAGTGGCCTCAAAACCTTGATGCT GAGGAGTAACTTGATCGGCTGTGTGAGTAATGACACCTTTGCCGGCCTGAGTTCGGTGAGACTGCTGTCCCTCTA TGACAATCGGATCACCACCATCACCCCTGGGGCCTTCACCACGCTTGTCTCCCTGTCCACCATAAACCTCCTGTC CAACCCCTTCAACTGCAACTGCCACCTGGCCTGGCTCGGCAAGTGGTTGAGGAAGAGGCGGATCGTCAGTGGGAA CCCTAGGTGCCAGAAGCCATTTTTCCTCAAGGAGATTCCCATCCAGGATGTGGCCATCCAGGACTTCACCTGTGA TGGCAACGAGGAGAGTAGCTGCCAGCTGAGCCCGCGCTGCCCGGAGCAGTGCACCTGTATGGAGACAGTGGTGCG  ${\tt CCACCTAACAGCCGTGCCCAGAGAGCTGTCCGCCCTCCGACACCTGACGCTTATTGACCTGAGCAACAACAGCAT}$ CAGCATGCTGACCAATTACACCTTCAGTAACATGTCTCACCTCTCCACTCTGATCCTGAGCTACAACCGGCTGAG GTGCATCCCCGTCCACGCCTTCAACGGGCTGCGGTCCCTGCGAGTGCTAACCCTCCATGGCAATGACATTTCCAG TGAGCCCATGGCTGACAGGCTCCTCACCACCCCAACCCACCGCTTCCAGTGCAAAGGGCCAGTGGACATCAA CATTGTGGCCAAATGCAATGCCTCCCCCCGCCCGTGCAAGAATAACGGGACATGCACCCAGGACCCTGTGGA GCTGTACCGCTGTGCCCTGCCCCTACAGCTACAAGGGCAAGGACTGCACTGTGCCCATCAACACCTGCATCAGAA CCCCTGTCAGCATGGAGGCACCTGACTGACTGACAGCCACAAGGATGGGTTCAGCTGCTCCTGCCCTCTGGG CTTTGAGGGGCAGCGGTGTGAGATCAACCCAGATGACTGTGAGGACAACGACTGCGAAAACAATGCCACCTGCGT GGACGGGATCAACAACTACGTGTGTATCTGTCCGCCTAACTACACAGGTGAGCTATGCGACGAGGTGATTGACCA CTGTGTGCCTGAGCTGAACCTCTGTCAGCATGAGGCCAAGTGCATCCCCCTGGACAAAGGATTCAGCTGCGAGTG TGTCCCTGGCTACAGCGGGAAGCTCTGTGAGACAGACAATGATGACTGTGTGGCCCACAAGTGCCGCCACGGGGC  ${\tt CCCACCCATGGTCCTACTGCAGACCAGCCCATGCGACCAGTACGAGTGCCAGAACGGGGCCCAGTGCATCGTGGT}$ GCAGCAGGAGCCCACCTGCCGCCCACCAGGCTTCGCCGGCCCCAGATGCGAGAAGCTCATCACTT CGTGGGCAAAGACTCCTACGTGGAACTGGCCTCCGCCAAGGTCCGACCCCAGGCCAACATCTCCCTGCAGGTGGC CACTGACAAGGACAACGGCATCCTTCTCTACAAAGGAGACAATGACCCCCTGGCACTGGAGCTGTACCAGGGCCA CGTGCGGCTGGTCTATGACAGCCTGAGTTCCCCTCCAACCACAGTGTACAGTGTGGAGACAGTGAATGATGGGCA GTTTCACAGTGTGGAGCTGGTGACGCTAAACCAGACCCTGAACCTAGTAGTGGACAAAGGAACTCCAAAGAGCCT GGGGAAGCTCCAGAAGCAGCCAGCAGTGGGCATCAACAGCCCCCTCTACCTTGGAGGCATCCCCACCTCCACCGG CCTCTCTGCCTTGCGCCAGGGCACGGACCGGCCTCTAGGCGGCTTCCACGGATGCATCCATGAGGTGCGCATCAA CAACGAGCTGCAGGACTTCAAGGCCCTCCCACCACAGTCCCTGGGGGTGTCACCAGGCTGCAAGTCCTGCACCGT GTGCAAGCACGGCCTGTGCCGCTCCGTGGAGAAGGACAGCGTGGTGTGCGAGTGCCGCCCAGGCTGGACCGGCCC

### 1958/6881 FIGURE 1798B

WO 2004/030615: PCT/US2003/028547

## 1959/6881 FIGURE 1799

GGCACGAGGGTGAGACGCTGATGGGAGG<mark>ATG</mark>GACGTACTGGTGTCTGAGTGCTCCGCGCGGGCTGCTGCAGCAGGA AGAAGAGATTAAATCTCTGACTGCTGAAATTGACCGGTTGAAAAACTGTGGCTGTTTAGGAGCTTCTCCAAATTT GGAGCAGTTACAAGAAGAAAATTTAAAATTAAAGTATCGACTGAATATTCTTCGAAAGAGTCTTCAGGCAGAAAG GAACAAACCAACTAAAAATATGATTAACATTATTAGCCGCCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGC ATATCCAGATTTGGAAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGGACTATCAGTGTAA TAGTGCTATGGGTATTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAGAAATTGCTGAAAACAT TACCAAACACCTCCCAGACAATGAATGTATTGAAAAAGTTGAAATTGCTGGTCCTGGTTTTATTAATGTCCACTT AAGAAAGGATTTTGTATCAGAACAATTGACCAGTCTTCTAGTGAATGGAGTTCAACTACCTGCTCTGGGAGAGAA TAAAAAGGTTATAGTTGACTTTTCCTCCCCTAATATAGCTAAAGAGATGCATGTAGGCCACCTGAGGTCAACTAT CATAGGAGAGAGTATAAGCCGCCTCTTTGAATTTGCAGGGTATGACGTGCTCAGGTTAAATCATGTAGGAGACTG GGGGACCCAGTTTGGCATGCTCATCGCTCACCTGCAAGACAAATTTCCAGATTATCTAACAGTTTCACCTCCTAT TGGGGATCTTCAGGTCTTTTATAAGGAATCTAAGAAGAGGTTTGATACTGAGGAGGAATTTAAGAAGCGAGCATA TCAGTGTGTAGTTCTGCTCCAGGGTAAAAACCCAGATATTACAAAAGCTTGGAAGCTTATCTGTGATGTCTCCCG GATGAATGATATTGTAAAGGAATTTGAAGATAGAGGATTTGTGCAGGTGGATGATGGCAGAAAGATTGTATTTGT CCCAGGGTGTTCCATACCATTAACCATAGTAAAATCAGATGGAGGTTATACCTATGATACATCTGACCTGGCTGC TATTAAACAAAGACTATTTGAGGAAAAAGCAGATATGATTATCTATGTTGTGGACAATGGACAATCTGTGCACTT CCAGACAATATTTGCTGCTGCTCAAATGATTGGTTGGTATGACCCTAAAGTAACTCGAGTCTTCCATGCTGGATT TGGTGTGGTGCTAGGGGAAGACAAGAAAAGTTTAAAACACGTTCGGGTGAAACAGTGCGCCTCATGGATCTTCT GAATGCTGCTCAGACATCCGTTGCATATGGCTGCATCAAATATGCTGACCTTTCCCATAACCGGTTGAATGACTA CATCTTCTCCTTTGACAAAATGCTAGATGACAGAGGAAATACAGCTGCTTACTTGTTGTATGCCTTCACTAGAAT CAGGTCTATTGCACGTCTGGCCAATATTGATGAAGAAATGCTCCAAAAAGCTGCTCGAGAAACCAAGATTCTTTT GGATCATGAGAAGGAATGGAAACTAGGCCGGTGCATTTTACGGTTCCCTGAGATTCTGCAAAAGATTTTAGATGA CTTATTTCTCCACACTCTCTGTGATTATATATATGAGCTGGCAACTGCTTTCACAGAGTTCTATGATAGCTGCTA CTGTGTGGAGAAAGATAGACAGACTGGAAAAATATTGAAGGTGAACATGTGGCGTATGCTGCTATGTGAAGCAGT  ${\tt AGCTGCTGTCATGGCCAAGGGGTTTGATATCCTGGGAATAAAACCTGTCCAAAGGATG\underline{{\tt TAA}}{\tt TCCTTCATAGGTTT}$ GAACACTGTGTGTTTTTACCAAAGTGGCCATTGGCACTGTTTGCTTTTTTACAATCATGTGGACACAAGCATAAG 

MDVLVSECSARLLQQEEEIKSLTAEIDRLKNCGCLGASPNLEQLQEENLKLKYRLNILRKSLQAERNKPTKNMIN
IISRLQEVFGHAIKAAYPDLENPPLLVTPSQQAKFGDYQCNSAMGISQMLKTKEQKVNPREIAENITKHLPDNEC
IEKVEIAGPGFINVHLRKDFVSEQLTSLLVNGVQLPALGENKKVIVDFSSPNIAKEMHVGHLRSTIIGESISRLF
EFAGYDVLRLNHVGDWGTQFGMLIAHLQDKFPDYLTVSPPIGDLQVFYKESKKRFDTEEEFKKRAYQCVVLLQGK
NPDITKAWKLICDVSRQELNKIYDALDVSLIERGESFYQDRMNDIVKEFEDRGFVQVDDGRKIVFVPGCSIPLTI
VKSDGGYTYDTSDLAAIKQRLFEEKADMIIYVVDNGQSVHFQTIFAAAQMIGWYDFKVTRVFHAGFGVVLGEDKK
KFKTRSGETVRLMDLLGEGLKRSMDKLKEKERDKVLTAEELNAAQTSVAYGCIKYADLSHNRLNDYIFSFDKMLD
DRGNTAAYLLYAFTRIRSIARLANIDEEMLQKAARETKILLDHEKEWKLGRCILRFPEILQKILDDLFLHTLCDY
IYELATAFTEFYDSCYCVEKDRQTGKILKVNMWRMLLCEAVAAVMAKGFDILGIKPVQRM

# FIGURE 1802

CAGTTCACAGTGTTCATCAGGCGAGATACTTTTGGACCCACAAAGCCAGTTTTTTGGGGGGGATGCTCAGTGTCTA CCTGCAGTGCCAAAGTTTTGCTTGAACAGCCCTCTTCTGCCGCGCCTCCCAGCTCCACCCCCTATCACGTGGGTG CTGGCTGCTTCTGCGTGAGGAGCTTCCTCTGATCACCTGTAGCATCTTTAGTGCCTTCGTCCAGTCGGCCTGCAA ATCCCATTTCCCAGAGAGGCCTTGGGCAGGGCCCACTTGCCACTTGGCCCTGTGCCCAGAGCGTTGGGGGCAGATG GGCAGTTTTCCTGAGTTCTTGATCCACTTTGGTTTAAACAACTTTTGTGAAGCTATGTGAGATTTGACTGCATTT CAAAAGACAAAACACATGTTTTTTTCTGATTTGCTCTTTGCCTTTCAGCGACGCTTTCAGATACTTTGTGAGTGT TGCCCTGCCTTCCTCTAGGCAGAAGTTTTCCTGCAAATGAAAGAATCTGCCATTCTCTTTTGCTATGATGATGA TGATTATTCTGACATGACCCGCGGGTACTGAAGCCACAGTCCTCTCTGTTCACTGTTCTCTCTTGAGTCATATC GGTGGCCAGTCACTCTCCTAGCTGTCCTTGCCTGGGGACTTAGATTTACCCCATCCAGGACTGTGGTCGCTATTC TGTGAGCGATTGATGGCGCATATGCAGAACTCCCCTGGAGTCATGGCTCTAGAAAGTGTCCAGGCCCATCGTGAC AATGGTGCCAAGCACCGGGCTGGTGACCAGTGCCTAAACACACGCTCCTTTAATCCTTACGGCAAGCCTGTGA GGCGGATAGGACCAGCCCTGATCTATAGTGAGAAAATTAAGGTTCAGAGGGAGAAGGTCCAAATAGTGGCCAAGC TGGGACTGAGATCTCGAGTTTGGGTTTGTTTGTTTGTTGTTGTTGTTCTTTCCCTCGTGTCCATGACTTTTCT  $\tt CCCCCCGCCCTTGCTCACACATTTCAGTAGGTCACAGGCCAAATGGCAGCCCAAAAGGTGGGCAGAGATTTTTT$ TTTCTTCCCCTCACCCCTGCTTATTAACACAATTGTGACAACTACTTTACCTTACATCCCAGGGCAAACGGACAG CTTGCGGTACCTCCAAAAATTTGGAAAACCCTGAGTCTAAGACCACCTCTTGATAAAAGAGGCCTTTGCTCACAT GTTCTGCTCGGAATCTTTCTTTGCCATTGGTGGGTGTATGTCGTCCCAGCTGAGACTGCGGGAGAGCTGAGCTCC AGCTTAAACCGCTTTTAATGGCCCTTCCCTACTGGGGGATCGCTGGAGCCCATGCCAGGTTACGGTAGTCATTTT AAACCTCTGCCACAAGGCCACGCCATAGAATCAATTTCCAAGTCAATGTTCTTGGCCCTAAAATGTTTGCGCCCA CTGAGGATTTCATTACCAGGTGGAAGATGGGGGAACATATGCCACGTTAAAGAGCAAGTGCTGAGTGTCCCAGGA GGGAAAAAGAAGAAACTGCTCCTGCCTTCCAGTAGCTGGCAACTTGACATCAAGAACAAAAAAATTCGTAGCTGG ACCCCGTCCTTTCATCGTGCCCAAGTCTTACATGTTGGCTTAAGCTGCCCCCTTGGAGGCCGTACCTTTCTCTT TGGACTGTGACAGTGGACACCTAACAGCCTGAGCCATGTGTGGCTGTCTTATCCCCCAAGGGTTGTCCAGGCCCG TTCTGCAGGGCTGTTGTGTAGACTGCAGACATCCATACCTCACCACAGACCAAAGATGACCTCGTGTCAGACTGT GGGCTGATGAGAGGTAGAGCAGCATGCATCGAGGCCTGAGGGTGCAGGGCCCCTCTCTTGGCCTGGAGGAATTG CTCCTAACTAGAGTAAGTTTCCACGAGGGTCCCAGGCAGAGCTGCAGAGCTGGAACCGGAGGCTCCACAGTCCTT GCCTGCTCATGGACCTCCTTCAGAGCACCTTTCTACAGACTGGACTGCCCAGCTCCGTGGGGTGGCATCTGGTTT CTGGTGCTATTCTGCCAAGTTATCGAGCTCCTCCTCATGTTTCAACATTCCATCTTCCCGTTTCTATCCTCGACT CCAAAGTAAGCCTTCTTAGCTCCAATCAGGGATGAGGGGCTCAACCTCTTCTGTCCTCAAAGAGGCCAAACGCAG TGCCACAGTCGGTAGCCTTCACTTTTAGATGTCCTATTCATGTAAAAAAAGAAGGTGCCCCCACCAGGCTTACATC AGCAATAAGCAATTCTAATGCAACGATGGTGTCCACATTTTACCCCAGTGTGTGCCCATGTATGCCTTTGTGCCC GTGTAATTATTGTTAGCGCCCCTTTCACTTAGAGGGGTGATGATAAACTGTGGCCACCTTGATTACAACCCACAT CTCGTGTCTGCTCATAGGATGACGCTGGAGATCCCCACACTTACTCTACCCTCTTGGCAAATTGGCATTCCGGTG CTGGTTTCAAGCTTCATCATG

# FIGURE 1803

 ${\tt TACCTAAGTGCGTGCCGCCACCGATGGAAGATTCGATGGACATGGACATGAGCCCCTGAGGCCCCAGAACTAT}$ CTTTTCGGTTGTGAACTAAAGGCCGACAAAGATTATCACTTTAAGGTGGATAATGATGAAAATGAGCACCAGTTA TCTTTAAGAACGGTCAGTTTAGGGGCTGGTGCAAAGGATGAGTTGCACATTGTTGAAGCAGAGGCAATGAATTAC GAAGGCAGTCCAATTAAAGTAACACTGGCAACTTTGAAAATGTCTGTACAGCCAACGGTTTCCCTTGGGGGGCTTT GAAATAACACCACCAGTGGTCTTAAGGTTGAAGTGTGGTTCAGGGCCAGTGCATATTAGTGGACAGCACTTAGTA GCTGTGGAGGAGATGCAGAGTCAGAAGATGAAGAGGAGGAGGATGTGAAACTCTTAAGTATATCTGGAAAGCGG TCTGCCCCTGGAGGTGGTAGCAAGGTTCCACAGAAAAAAGTAAAACTTGCTGCTGATGAAGATGATGACGATGAT AAGAAATCTATACGAGATACTCCAGCCAAAAATGCACAAAAGTCAAATCAGAATGGAAAAGACTCAAAACCATCA TCAACACCAAGATCAAAAGGACAAGAATCCTTCAAGAAACAGGAAAAAACTCCTAAAACACCAAAAGGACCTAGT TCTGTAGAAGACATTAAAGCAAAAATGCAAGCAAGTATAGAAAAAGGTGGTTCTCTCCCAAAGTGGAAGCCAAA TTCATCAATTATGTGAAGAATTGCTTCCGGATGACTGACCAAGAGGCTATTCAAGATCTCTGGCAGTGGAGGAAG  $\texttt{TCTCTT} \underline{\textbf{TAA}} \texttt{GAAAATAGTTTAAACAATTTGTTAAAAAATTTTCCGTCTTATT} \texttt{TCATTTCTGTAACAGTTGATATC}$ TGGCTGTCCTTTTTATAATGCAGAGTGAGAACTTTCCCTACCGTGTTTGATAAATGTTGTCCAGGTTCTATTGCC AAGAATGTGTTGTCCAAAATGCCTGTTTAGTTTTTAAAGATGGAACTCCACCCTTTGCTTGGTTTTAAGTATGTA TGGAATGTTATGATAGGACATAGTAGTAGCGGTGGTCAGACATGGAAATGGTGGGGAGACAAAAATACACATGTG 

GGGCGCCCCAATGGGCTGCGCGGAGCGTCACTTCCCGGCAGCGGGAGGCGAGTGGCGAGTGGCGAGTGGCGAG ACAGGAAGGTGCCCAAGGACCTTACGCAGCCAACGTACACCGGGGCCATTATCTCCATCTGCTGCTGCTCTTCA TCCTCTTCCTCTCCGGAGCTCACCGGATTTATAACGACAGAAGTTGTGAACGACCTCTATGTCGATGACC GGCTTGACATTCAGGATGAGATGGGCAGGCACGAAGTGGGCCACATCGACAACTCCATGAAGATCCCGCTGAACA GTGCCACAGCCCACAGAACCCAGACATGACGCATGTCATCCACAAGCTCTCCTTTGGGGACACGCTACAGG ACTACATCCTGAAGATTGTGCCCACGGTTTATGAGGACAAGAGTGGCAAGCAGCGGTACTCCTACCAGTACACGG TGGCCAACAAGGAATACGTCGCCTACAGCCACACGGGCCGCATCATCCCTGCAATCTGGTTCCGCTACGACCTCA GCCCCATCACGGTCAAGTACACAGAGAGACGGCAGCCGCTGTACAGATTCATCACCACGATCTGTGCCATCATTG GCGGGACCTTCACCGTCGCCGGCATCCTGGACTCATGCATCTTCACAGCCTCTGAGGCCTGGAAGAAGATCCAGC  $\tt TGGGCAAGATGCAT{\color{red}{\bf TGA}}CGCCACACCCAGCCTAATGGCCGAGGACCCTGGGCATCGCCAGCCTTGCCTCCAGTGC$ CCTGTCTCCTTTGGCCCTCAATCTGGTCCCAAATCTGGCTGTGTCCCAAAGGGTGTGTGGGAAGTGGGGGGAAAG TAGAGGATGGCTCGATGTTTTGCAGCTACCTCTTTTCCCCGTGTTTCTTTTTAGACAAATTACACTGCCTGAAGT TGCAGTTCCCCTTTCCCTGGGGAGCCCCAAGAACAGAGTCAGGCAAGGGGTGGGGAGTCCAGGGGAACATCCCAG AATGCATATCGATCAGCTCTCAGCCAGGCTTCGACAATCTCGCAGCCCCCACTAGGTGGACACATTAATGATTTG GTTTCTCCCCTGGGCAGCCAACCTGCCCCAGAGGCACCAGACCTGGGCTTTCAGCTTTGGGACCAGGCTGCCCAA TCTGAGGACATAGGGGATGTCAGTTTCCTATGGAAGAGACACCTCTGACCCGTTATTCTTATAATCAAAATCTGA AGGGAAAAAATGTTTTAGTTCTTTCCCCACTCGTTGGGTTCAACTAGATTAAAAGGCTGATTTTCAG

MPFDFRRFDIYRKVPKDLTQPTYTGAIISICCCLFILFLFLSELTGFITTEVVNELYVDDPDKDSGGKIDVSLNI SLPNLHCELVGLDIQDEMGRHEVGHIDNSMKIPLNNGAGCRFEGQFSINKVPGNFHVSTHSATAQPQNPDMTHVI HKLSFGDTLQVQNIHGAFNALGGADRLTSNPLASHDYILKIVPTVYEDKSGKQRYSYQYTVANKEYVAYSHTGRI IPAIWFRYDLSPITVKYTERRQPLYRFITTICAIIGGTFTVAGILDSCIFTASEAWKKIQLGKMH

#### 1968/6881 FIGURE 1808A

GAAGCCGCCCATCCCGCCCCAAGTGGAGGAAGAGTATTACACCATCGCCGAATTCCAGACAACCATCCCAGACGG CATCAGCTTCCAGGCAGGCCTGAAGGTCGAGGTGATCGAGAAAAACTTGAGTGGCTGGTGGTACATTCAGATTGA AGATAAGGAAGGGTGGGCCCCGGCCACCTTCATTGACAAGTACAAGAAGACGAGCAACGCGTCGAGACCCAACTT TCTGGCTCCCTGCCCACGAGGTGACCCAGCTCCGGCTGGGGGAAGCAGCAGCGCTGGAGAACAACACGGGCAG CGAAGCCACGGGCCCCTCCCGGCCCTGCCTGACGCACCGCATGGTGTCATCGACTCGGGGTTGCCATGGTCTAA AGACTGGAAGGCAGTAAGGATGTCCTGAGGAAGGCATCTTCAGACATGTCTGCGTCAGCAGGCTACGAGGAGAT GCTGGAGCGGGAGCGGCAGAGGACGGAGCAGCTCCGGGGCCCCACTCCCAAGCCTCCGGGCGTGATTTT GCCGATGATGCCAGCCAAACATCCCTCCAGCCCGGGACAGCAGGAGGCCCAAACCTGACAAAAGCAG ACTGTTCCAGCTGAAAAATGACATGGGGCTGGAGTGTGGCCAAGGTCTTGGCCAAGGAAGTGAAGAAGCCCAA GAAGTCCAGACCTCAGGTTAGGCCAAAACCAGCTCCTTCCCCCAAAACGGAGCCACCTCAGGGCGAAGACCAAGT  $\tt CGACATCTGCAACCTCAGGAGTAAGCTCAGGCCTGCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGGAGGGCCCAAGACAAGTCCTTGTTGGATGGGGAGGGCCCAAGACAAGTCCTAGTTGGATGGGAGGGCCCAAGACAAGTCCTTGTTGGATGGGGAGGGCCCAAGACAAGTCCTAGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTTGGATGGGAGGGCCCAAGTCCCAAGACAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGTCCAAGTCCTTGTTGGATGGGAGGGCCCAAGTCCCAAGTCCAAGTCCAAGTCCAAGTCCAAGTCA$ CCAGGCAGTAGGGGGCCAAGACGTGGCCTTCAGCCGAAGCTTCCTCCCAGGAGAGGGGCCTGGCCGCCCCAGGA AGATCCTGTGTCTAAGAGCGTGCCTGTTCCTCCCAAGAGGCCTCCCCAGCAGAGACCTGTGGTCCCACCCCGCAG ACCACCTCCCCAAAGAAAACCTCTTCGTCATCCAGGCCGCTCCCAGAGGTCAGAGGTCCACAGTGTGAAGGCCA CGAAAGCAGGGCAGCTCCCACCCAGGCCGTGCTCTCCTCGTCCCCAAAAGCCAAACCTTTTCTCTCCAACTC TTTGGGGGGCCAGGATGACACGCGAGGCAAAGGCAGCCTGGGGGCCATGGGGGACCGGCAAGATTGGAGAAAACAG GGAGAAAGCAGCTGCAGCCTCTGTCCCCAATGCCGACGGCCTGAAGGACTCTTTGTATGTGGCCGTGGCCGACTT TGAAGGAGACAAGACACCAGCAGCTTCCAGGAAGGGACAGTGTTTGAAGTCCGGGAGAAGAACAGCAGTGGCTG **GTAG**CCGACTCCCTTTCTGCCTAGAGGGCCCGCTGGTCCTTGCTGGCTTTACCCACGTATTTAATACGCCTCTTA ATTTATCATTCTCCACGCAGCTTCCAAGGCAGACAGACTCTGGGGTACTGTGACTTCTTGCCTCCCATGGGTGGA GAGTGAGTTTCGGACACCTCGGGCCCCTGGGCCTGATCCCTCCTATCACAGCATCACTGGAGGCTCAGAACCC ACAGCCTTTGCTTTCTGTCCATGTCAGCATCCCTGCCTTAAGAGAACTCCTCCTGGCCAATGGCATTGCCACCCA GCAGTGGGACCAAGACTCTCCAAGACCTCCAGGACTGGATCCCATTGCCTGGAGAAACTCCAGCAAGGGTCTCTC ATGGCTTGGACATGGCACAGTAAGGGGCAGCCAACCCAGTCCATGATGACTTTTTGCTCCAACTTCTTCATGTTTC TAAAAGCCCAGTGGCTTTATTCACTCCTCCTAAATTGCCTGCTACCAGAAGGAACTTCATCCTGAAGAAATGCAT TCCATTACCAGTTCCAGGGAAAGTGTCCCCTTCCCCAAAGCCTCAGGCCCGTGGGCCTCTGAGGTTCCACTGGAT GCGGCTCCCCAGGAGTGGGCCTGGAGATCCGCTCAGCCGCCTCCCCACCTTCTATCTTGGGACCGTGGTC AGCCCTGAAGGGTGGTTCCAGCCCCGCGTATGCTGCGCTTTGCTGCTGCAGGCTCCGGTCCCTCCAGGGCTTTTC TAAGAGGCCCATTCACAAGTCGTGCCCTTGTGAGCACCCCTTTGCTGAGTGCCTCGTGGGTGCCAAACACTGTAC TTGGCGCTTTGCATTCATGCTTTGACCCTCACAACCTCCCTTTATAGATGAGGAAATTCACGCTCCATGTGCCCA AGGACACCAGCCAGGAGGAAGAGGGAAGAGGGATTTGAGTCCAGGCCTGACTTCAGTGCCTGTGCCCTCC CCTCTGTAAAAGACAACCAGGCAGGGAAGAGATAGAAGCTGGCTAAGTGGTGGCCAAGTGGCTTCATTGTGAGG GGGGTGAGGGGCATTCGTGGCTGCTCCCACCCACCATCCCTCCAGCCCACAGCAGCCTATACCAAAGGCTGC CCTGGACTCAACAGCTGCATCTCCATGACAGGAGAATGCCAGGGTCCTGGTGGTTGACACAGAGCCCTGTTCCCT CTTCTAAGCTGTTGCCCCCTGGGGAATAGAGCTTATGGAGCAACGGGAGCTGAGGTGGCCTCGAGGGCCAGCCTG GAGGGCTCTGAGCATAGCATGCAGCGGTCCCATAGGGAGGCAGGTAACCAAGGGCCAGGCAGAGCTGCTTCCTGT GCCTCTCCGGCATTTGTAATGTTTTTTTTTTTTTCACGCACTGCCAAATCTGTTTTCTCCCTTGAAGAAACCCA GGGCAGATGTGGTCATCTGTCAAACTGAGGTCTGGAGAGGCATGACTAAATCACTGCAGAAGCAAAATCAGGACC CTGCCCTGCCCTGCCCCACCCTGCCCTGCCCCAGAGATCTCCAGTTCACAGTGTTCATCAGGCGA GATACTTTTGGACCCACAAAGCCAGTTTTTTGGGGGGGATGCTCAGTGTCTACCTGCAGTGCCAAAGTTTTGCTTG AACAGCCCTCTTCTGCCGCGCCTCCCAGCTCCACCCCTATCACGTGGGTGCTGCTTCTTCTGCGTGAGGAGCT TCCTCTGATCACCTGTAGCATCTTTAGTGCCTTCGTCCAGTCGGCCTGCAAATCCCATTTCCCAGAGAGGCTTGG

# FIGURE 1808B

GCAGGGCCCACTTGCCACTTGGCCCTGTGCCCAGAGCGTTGGGGGCAGATGGCAGCCAGGGGAAGAAGGGAGGTG GGGAAGGCCGCCACCGCTTGAGGGTCCCCTCCCTTGAGAGGAGGCCCCATGGCAGTTTTCCTGAGTTCTTGATC CACTTTGGTTTAAACAACTTTTGTGAAGCTATGTGAGATTTGACTGCATTTCAAAAGACAAAACACATGTTTTTT  ${\tt TCTGATTTGCTCTTTGCCTTTCAGCGACGCTTTCAGATACTTTGTGAGTGTCTACTCTGTGCTAGGTGCTGAGTA}$ GACTGGGATGTGTGTGGCTCCATCCCTGGCTGGAAGAGCTTTGAGTCCTGTCTGCTGACTTCACTGAAGGAGTTT CTCTCTTGCTTCATTCCTTCCTCCCGGGGGTCAGCTGGGTAGGAGCAGACTTGCCCTGCCTTCCTCTAGGCAGAA AGTTTTCCTGCAAATGAAAGAATCTGCCATTCTCTTTTGCTATGATGATGATGATTATTCTGACATGACCCGCGG GTACTGAAGCCACAGTCCTCTGTTCACTGTTCTCTCTTGAGTCATATCTATGGCCTGAGGACGTCTGTATCC CAGAACTCCCCTGGAGTCATGGCTCTAGAAAGTGTCCAGGCCCATCGTGACAATGGTGCCAAGCACCGGGCTGGT GACCAGTGCCTAAACACACGCTCCTTTAATCCTTACGGCAAGCCTGTGAGGCGGATAGGACCAGCCCTGATCT ATAGTGAGAAAATTAAGGTTCAGAGGGAGAAGGTCCAAATAGTGGCCAAGCTGGGACTGAGATCTCGAGTTTGGG  $\tt TTTGTTTGGTTTTTTTTTTTTTTTTCCTTCGTGTCCATGACTTTTCTCTGCCATTAGCAGGGAAGTGTGCG$ GAGGGCTTCCAGGGAATCAAGTGACCCTCCCTCTGAATTTCGGTGCCTCTTCCCCCCGCCCCTTGCTCACACATT TAACACAATTGTGACAACTACTTTACCTTACATCCCAGGGCAAACGGACAGCTTGCGGTACCTCCAAAAATTTGG CATTGGTGGGTGTATGTCGTCCCAGCTGAGACTGCGGGAGAGCTGAGCTCCAGCTTAAACCGCTTTTAATGGCCC TTCCCTACTGGGGGATCGCTGGAGCCCATGCCAGGTTACGGTAGTCATTTTAAACCTCTGCCACAAGGCCACGCC ATAGAATCAATTTCCAAGTCAATGTTCTTGGCCCTAAAATGTTTGCGCCCACTGAGGATTTCATTACCAGGTGGA AGATGGGGGAACATATGCCACGTTAAAGAGCAAGTGCTGAGTGTGCCAGGACTTGAGAAGGACCTTAGGCTGAGG AGTGGACAGTCTGGTATTTATTTCGCCTCTCCCAAGTACCCAGCACAGAGTGGGAAAAAAGAAGAAACTGCTCCTG  $\verb|CCTTCCAGTAGCTGGCAACTTGACATCAAGAACAAAAACATICGTAGCTGGACCCCCGTCCTTTCATCGTGCCCA|\\$ AGTCTTACATGTTGGCTTAAGCTGCCCCCTTGGAGGCCGTACCTTTCTCTTTGGACTGTGACAGTGGACACCTAA CAGCCTGAGCCATGTGTGGCTGTCTTATCCCCCAAGGGTTGTCCAGGCCCGTTCTGCAGGGCTGTTGTGTAGACTGCAGACATCCATACCTCACCACAGACCAAAGATGACCTCGTGTCAGACTGTGGGCTGATGAGAGGTAGAGCAGCA TGCATCGAGGCCTGAGGGTGCAGGGCGCCCTCTCTTGGCCTGGAGGAATTGCTCCTAACTAGAGTAAGTTTCCAC GAGGGTCCCAGGCAGAGCTGCAGAGCTGGAACCGGAGGCTCCACAGTCCTTGCCTGCTCATGGACCTCCTTCAGA GAGCTCCTCCTCATGTTTCAACATTCCATCTTCCCGTTTCTATCCTCGACTCCAAAGTAAGCCTTCTTAGCTCCA ATCAGGGATGAGGGGCTCAACCTCTTCTGTCCTCAAAGAGGCCAAACGCAGTGCCACAGTCGGTAGCCTTCACTT TTAGATGTCCTATTCATGTAAAAAAGAAGGTGCCCCCACCAGGCTTACATCAGCAATAAGCAATTCTAATGCAAC GATGGTGTCCACATTTTACCCCAGTGTGTGCCCATGTATGCCTTTGTGCCCGTGTAATTATTGTTAGCGCCCCTT TCACTTAGAGGGGTGATGATAAACTGTGGCCACCTTGATTACAACCCACATTTCCTGCTTTGGGGAGCTTCCAAG TAACAGGCCATTTCTTACCTCCCTCCAGGAACAGTGGGCACTGCCCACCACCTCGTGTCTGCTCATAGGATGACG CTGGAGATCCCCACACTTACTCTACCCTCTTGGCAAATTGGCATTCCGGTGGTGGTTTTTGTTTCCTTTAACACA TTAAATAAATGAGTATATAGGATGTGAGGGGAGGGGTGAGAACAACTAGCTGTAGCATGTGTAGGCTATATACTT TACCATTTGACTTCTTTCTTTTTTTTTTTTAAATAAAAAAGTGCTTGACTGGTTTCAAGCTTCATCATG

# FIGURE 1809

MDSGLPWSKDWKGSKDVLRKASSDMSASAGYEEISDPDMEEKPSLPPRKESIIKSEGELLERERERQRTEQLRGP
TPKPPGVILPMMPAKHIPPARDSRRPEPKPDKSRLFQLKNDMGLECGHKVLAKEVKKPNLRPISKSKTDLPEEKP
DATPQNPFLKSRPQVRPKPAPSPKTEPPQGEDQVDICNLRSKLRPAKSQDKSLLDGEGPQAVGGQDVAFSRSFLP
GEGPGRAQDRTGKQDGLSPKEISCRAPPRPAKTTDPVSKSVPVPLQEAPQQRPVVPPRRPPPPKKTSSSSRPLPE
VRGPQCEGHESRAAPTPGRALLVPPKAKPFLSNSLGGQDDTRGKGSLGPWGTGKIGENREKAAAASVPNADGLKD
SLYVAVADFEGDKDTSSFQEGTVFEVREKNSSGWWFCQVLSGAPSWEGWIPSNYLRKKP

GTCCCCAACATGGCGGCTCCCCAAGACGTCCACGTCCGGATCTGTAACCAAGAGATTGTCAAATTTGACCTGGAG GTGAAGGCGCTTATTCAGGATATCCGTGATTGTTCAGGACCCTTAAGTGCTCTTACTGAACTGAATACTAAAGTA ACATTTTTTTTTAAGCTAACTTATTCCCTGACAGACTTTTCTTCAACTCAGCATGACTTCAACTCCCAACTACA  $\verb|CCTGTTACCTTCAGTGACCTGGAGCAGTTGGCTAAAGAGCAAGAACAACAACAACAACAACTTCTACTCCAG| \\$ GAAGTGGAGAATCACAAAAAGCAGATGCTCAGCAATCAGGCCTCATGGAGGAAAGCTAATCTCACCTGCAAAATT GCAATCGACAATCTAGAGAAAGCAGAACTTCTTCAGGGAGGAGATCTCTTAAGGCAAAGGAAAACCACCAAAGAG AGCCTGGCCCAGACATCCAGTACCATCACTGAGAGCCTCATGGGGATCAGCAGGATGATGGCCCAGCAGGTCCAG ATGTCGGCACCATCCAGCTGGGCCGGAAGCTTATCACAAAATACAATCGCCGGGAGCTGACGGACAAGCTTCTC ATCTTCCTTGCGCTAGCCCTGTTTCTTGCTACGGTCCTCTATATTGTGAAAAAGCGGCTCTTTCCATTTTTGTGA GATCCCAAAGGTGCCAGTTCTGGCCCTTTCAGCTCCTGTTTCAGGATCTGTCCTGAGCTCTAGGCTGC CAAGTAGCTGGCTTGTAAAGGGTGAACAGAGCCATGGGAAGGTCTGGCATTGGGATGCCGCCCTGGGGACAT GTAGGAAGAAGGTGATGAAAACTCCTGGTCATTCCTTGAATAAA

WO 2004/030615 PCT/US2003/028547

#### 1973/6881 FIGURE 1812

 ${\tt GAGGAAGAGGGGAGCACAAAGGATCCAGGTCTCCCGACGGGAGGTTAATACCAAGAACC} \underline{{\tt ATG}} {\tt TGTGCCGAGCGGC}$ TGGGCCAGTTCATGACCCTGGCTTTGGTGTTGGCCACCTTTGACCCGGCGGGGGGACCGACGCCACCAACCCAC CCGAGGGTCCCCAAGACAGGAGCTCCCAGCAGAAAGGCCGCCTGTCCCTGCAGAATACAGCGGAGATCCAGCACT GTTTGGTCAACGCTGGCGATGTGGGGTGTGGCGTGTTTGAATGTTTCGAGAACAACTCTTGTGAGATTCGGGGCT CCTTGAAATGTAAGGCCCACGCTCTGCGGCACAGGTTCGGCTGCATAAGCCGGAAGTGCCCGGCCATCAGGGAAA TGGTGTCCCAGTTGCAGCGGGAATGCTACCTCAAGCACGACCTGTGCGCGGCTGCCCAGGAGAACACCCGGGTGA TAGTGGAGATGATCCATTTCAAGGACTTGCTGCTGCACGAACCCTACGTGGACCTCGTGAACTTGCTGCTGACCT GTGGGGAGGAGGTGAAGGAGGCCATCACCCACAGCGTGCAGGTTCAGTGTGAGCAGAACTGGGGAAGCCTGTGCT CCATCTTGAGCTTCTGCACCTCGGCCATCCAGAAGCCTCCCACGGCGCCCCCGAGCGCCCAGGCGCAGCCCAGGTGGACA GAACCAAGCTCTCCAGGGCCCACCACGGGGAAGCAGGACATCACCTCCCAGAGCCCAGCAGTAGGGAGACTGGCC GAGGTGCCAAGGGTGAGCGAGGTAGCAAGAGCCACCCAAACGCCCATGCCCGAGGCAGAGTCGGGGGCCTTGGGG  $\verb|CTCAGGGACCTTCCGGAAGCAGCGAGTGGGAAGACGAACAGTCTGAGTATTCTGATATCCGGAGG\underline{\textbf{TGA}} \verb|AATGAAA|$ GGCCTGGCCACGAAATCTTTCCTCCACGCCGTCCATTTTCTTATCTATGGACATTCCAAAACATTTACCATTAGA GAGGGGGGATGTCACACGCAGGATTCTGTGGGGACTGTGGACTTCATCGAGGTGTGTTCGCGGAACGGACAGG TGAGATGGAGACCCCTGGGGCCGTGGGGTCTCAGGGGTGCCTGGTGAATTCTGCACTTACACGTACTCAAGGGAG GGGAGGTGAACCAGGGAGGGCAGGCAAGGCAGGCCCCCAGAGCTGGGCCACACAGTGGGTGCTGGGCCTCGC CCCGAAGCTTCTGGTGCAGCAGCCTCTGGTGCTGTCTCCGCGGAAGTCAGGGCGGCTGGATTCCAGGACAGGAGT TTTCTATGTGTAATTTCTGAGCCATTGTACTGTCTGGGCTGGGGGGGACACTGTCCAAGGGAGTGGCCCCTATGA CAGCCCATCCTTTGAGGCTGATTTTTCTTTTTTTAAGTTCTATTTTAAAAGCTATCAAACAGCGACATAGCCAT ACATCTGACTGCCTGACATGGACTCCTGCCCACTTGGGGGAAACCTTATACCCAGAGGAAAATACACACCTGGGG AGTACATTTGACAAATTTCCCTTAGGATTTCGTTATCTCACCTTGACCCTCAGCCAAGATTGGTAAAGCTGCGTC CTGGCGATTCCAGGAGACCCAGCTGGAAACCTGGCTTCTCCATGTGAGGGGATGGGAAAGGAAAGAAGAATGA AGACTACTTAGTAATTCCCATCAGGAAATGCTGACCTTTTACATAAAATCAAGGAGACTGCTGAAAATCTCTAAG GGACAGGATTTTCCAGATCCTAATTGGAAATTTAGCAATAAGGAGAGGAGTCCAAGGGGACAAATAAAGGCAGAG AGAGAGAGAGAGAGGGAGAGAAAAGAGAGAGAAAAAGAGCCTCGTGCC

 $\label{thm:ceingle} \begin{tabulated pargtdatn ppegpodrssome keingleichten kontagen gegenen keingleichten kontagen gegenen keingleichten kontagen keingleichten kontagen keinglichten kontagen keing keing$ 

MAVPAAAMGPSALGQSGPGSMAPWCSVSSGPSRYVLGMQELFRGHSKTREFLAHSAKVHSVAWSCDGRRLASGSF DKTASVFLLEKDRLVKENNYRGHGDSVDQLCWHPSNPDLFVTASGDKTIRIWDVRTTKCIATVNTKGENINICWS PDGQTIAVGNKDDVVTFIDAKTHRSKAEEQFKFEVNEISWNNDNNMFFLTNGNGCINILSYPELKPVQSINAHPS NCICIKFDPMGKYFATGSADALVSLWDVDELVCVRCFSRLDWPVRTLSFSHDGKMLASASEDHFIDIAEVETGDK LWEVQCESPTFTVAWHPKRPLLAFACDDKDGKYDSSREAGTVKLFGLPNDS

PCT/US2003/028547

#### 1977/6881 FIGURE 1816

GGAAGATGAGGACGACGAGGACTACGTGCCCTATGTGCCGTTACGGCAGCGCCGGCAGCTACTGCTCCAGAAGCT GCTGCAGCGAAGACGCAAGGGAGCTGCGGAGGAAGAGCAGCAGGACAGCGGTAGTGAACCCCGGGGAGATGAGGA CGACATCCCGCTAGGCCCTCAGTCCAACGTCAGCCTCCTGGATCAGCACCAGCACCTTAAAGAGAAGGCTGAAGC GCGCAAAGAGTCTGCCAAGGAGAAGCAGCTGAAGGAAGAAGAAGATCCTGGAGAGTGTTGCCGAGGGCCGAGC ATTGATGTCAGTGAAGGATGGCTAAGGGCATTACGTATGATGACCCCATCAAAACCAGCTGGACTCCACCCCG TATCCCACCACCATCAAGAGCTTCAAGGAAATGAAGTTTCCTGCAGCCATCCTGAGAGGCCTGAAGAAGAAAAGG CATTCACCACCCAACACCCATTCAGATCCAGGGCATCCCCACCATTCTATCTGGCCGTGACATGATAGGCATCGC TTTCACGGGTTCAGGCAAGACACTGGTGTTCACGTTGCCCGTCATCATGTTCTGCCTGGAACAAGAGAAGAGGGTT ACCCTTCTCAAAGCGCGAGGGGCCCTATGGACTCATCTGCCCCTCGCGGGAGCTGGCCCGGCAGACCCATGG CATCCTGGAGTACTACTGCCGCCTGCTGCAGGAGGACAGCTCACCACTCCTGCGCTGCGCCCCTCTGCATTGGGGG CATGTCCGTGAAAGAGCAGATGGAGACCATCCGACACGGTGTACACATGATGGTGGCCACCCCGGGGCGCCTCAT GGATTTGCTGCAGAAGAAGATGGTCAGCCTAGACATCTGTCGCTACCTGGCCCTGGACGAGGCTGACCGCATGAT TGCCACCATGCCGAAGAAGATTCAGAACTTTGCTAAGAGTGCCCTTGTAAAGCCTGTGACCATCAATGTGGGGCG CGCTGGGGCTGCCAGCCTGGATGTCATCCAGGAGGTAGAATATGTGAAGGAGGAGGCCAAGATGGTGTACCTGCT CGAGTGCCTGCAGAAGACACCCCCGCCTGTACTCATCTTTGCAGAGAAGAAGGCAGACGTGGACGCCATCCACGA CGAGGCATTCCGGGAGGCCAAGAAGGATGTCCTAGTAGCCACAGACGTTGCCTCCAAGGGCCTGGACTTCCCTGC CATCCAGCACGTCATCAATTATGACATGCCAGAGGAGATTGAGAACTATGTACACCGGATTGGCCGCACCGGGCG CTCGGGAAACACAGGCATCGCCACTACCTTCATCAACAAAGCGTGTGATGAGTCAGTGCTGATGGACCTCAAAGC GCTGCTGCTAGAAGCCAAGCAGAAGGTGCCGCCCGTGCTGCAGGTGCTGCATTGCGGGGATGAGTCCATGCTGGA TATGCAGACCAAGCAGCTCAGCAACATCGGTCGCAAGGACTACCTGGCCCACAGCTCCATGGACTTCTGAGCCGA CAGTCTTCCCTTCTCCAAGAGGCCTCAGTCCCCAAGACTGCCACCAGTCTACACATACAGCAGCCCCCTGGAC AGAATCAGCATTTCAGCTCAGCTGGCCTGGGATGGGCCAGGCTGGTCCTGGCTGCTCTTCAG AATTACTGTTTTTGTTTCCTTTTACCCCAGCTGCCATTAAAGCCCAAACCTCTAGCCC

GCCTCCGCCCCGCGGGACCCTCCGCGGTACACCTTGCACCCAGCGTCTCCCTCTACAAGACGGCCCGGCCCT TTGGTGCGCCCCGCCGCTGACAGCGCCCCGCAGCAGAATGGACAGCCGCTCCGACCGCTGGTCCCAGATGCCA TCCTTGCCCACCTCACAGGCACCGAGTTCATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGC CCAGGACAGAAGCCCCAGCCCCAGCCTCATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCAGCCCTA CCAGCCGCCCTGGGCTGTGGACCCTGCGTTTGCCGAGCGCTATGCCCCGGACAAAACGAGCACAGTGCTGA TGCCAGGAGGGGGCAGCAACAACGGCAAGACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGCCGCTACC TGGTGGCGCTGGGCCACGCGTACCACCCGGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTG GCTTCTTTGAGGAGAAGGGCGCCATCTTCTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGT GCAAGAAGAAGATTACAGGCGAGATCATGCACGCCCTGAAGATGACCTGGCACGTGCACTGCTTTACCTGTGCTG AGATGTTTGGCACGAAATGCCATGGCTGTGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCT  ${\tt AGGACAGGCCTCTCTGCAAGAGCCATGCCTTCTCTCATGTGTGAGCCCCTTCTGCCCACAGCTGCCGCGGTGGCC}$ CCTAGCCTGAGGGGCCTGGAGTCGTGGCCCTGCATTTCTGGGTAGGGCTGGCAATGGTTGCCTTAACCCTGGCTC GCACACCGGTGCTGGCCACACCAGCCCCCTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

AGGTGGAGCAAGATGGCTGTGGAGCTGGGCGTGCTCGTCCGGCCCGGCCCGGAACCGGGCTGGGTAGAGTG ATCCGGACCCTCCTGCTGGTGCTGTGGCTGGCGACGCGCGGAAGCGCGCTCTACTTTCACATCGGAGAGACGGAG AAGAAGTGCTTTATTGAGGAGATCCCGGACGAGACCATGGTCATAGGAAACTACCGGACGCAGCTGTATGACAAG  ${\tt CAGCGGGAGGAGTACCAGCCGGGCCACCCCGGGGCTTGGCATGTTTGTGGAGGTGAAGGACCCAGAGGACAAGGTC}$ ATCCTGGCCCGGCAGTATGGCTCCGAGGGCAGGTTCACTTTCACTTCCCATACCCCTGGTGAGCACCAGATCTGT GTGGAACAAGTGGAGCAGATCCAGAAAGAGCAGAACTACCAGCGGTGGCGAGAGGAGCGCTTCCGGCAGACCAGT GAGAGCACCAACCAGCGGGTGCTGTGGTCGTCCATTCTGCAGACCCTCATCCTCGTGGCCATCGGTGTCTGGCAG  ${\tt ATGCGGCACCTCAAGAGCTTCTTTGAAGCCAAGAAGCTTGTG} \underline{{\tt TAGC}} {\tt CTGTCCCAGGCGTCACAACCCATCCTCCCA}$ GGCTGGGGGAGAAAGGACCTCCTGGAACTGACTTCTTCTGTCAGGAGGACTGGTTTCCAGCCATACCTGTTCTGG GCAAATTCCTGCCCTCTCTCTGGCCTCTGGGCCGTTTGGTAGTAATCACCCAGGGGCTGGTAAAGCCCCTCCT  ${\tt CAGGCAAGCCAGTCTTCTGTTCTTTCTTTGCTAACTTAGGGTTTTGAGCAGGTTGGGGTATGGTGCCTGTCATACC}$  $\tt GGTGGGTGGAGGGGTTTGCAGTGTGGGAATGTGGCCCTGCAGTTGACCTGAGCTGCTTCACATGGTTGTCCATTC$  $\tt TGGGGCTTAAAGAACTGGGACCAGACCAAGTAGAGGCCTTGGTGCTGGTTGGGGTGGGGCCTGCAGAGTCTTAGT$ 

MRTLLLVLWLATRGSALYFHIGETEKKCFIEEIPDETMVIGNYRTQLYDKQREEYQPATPGLGMFVEVKDPEDKV ILARQYGSEGRFTFTSHTPGEHQICLHSNSTKFSLFAGGMLRVHLDIQVGEHANDYAEIAAKDKLSELQLRVRQL VEQVEQIQKEQNYQRWREERFRQTSESTNQRVLWWSILQTLILVAIGVWQMRHLKSFFEAKKLV

GGAAGATGAGGACGACGACGACTACGTGCCCTATGTGCCGTTACGGCAGCGCCGGCAGCTACTGCTCCAGAAGCT GCTGCAGCGAAGACGCAAGGGAGCTGCGGAGGAAGAGCAGCAGCAGCAGCGGTAGTGAACCCCGGGGAGATGAGGA CGACATCCCGCTAGGCCCTCAGTCCAACGTCAGCCTCCTGGATCAGCACCAGCACCTTAAAGAGAAGGCTGAAGC GCGCAAAGAGTCTGCCAAGGAGAAGCAGCTGAAGGAAGAAGAAGATCCTGGAGAGTGTTGCCGAGGGCCGAGC ATTGATGTCAGTGAAGGAGATGGCTAAGGGCATTACGTATGATGACCCCATCAAAACCAGCTGGACTCCACCCCG TTATGTTCTGAGCATGTCTGAAGAGCGACATGAGCGCGTGCGGAAGAAATACCACATCCTGGTGGAGGAGACGG TATCCCACCACCATCAAGAGCTTCAAGGAAATGAAGTTTCCTGCAGCCATCCTGAGAGGCCTGAAGAAGAAAGG CATTCACCACCCAACACCCATTCAGATCCAGGGCATCCCCACCATTCTATCTGGCCGTGACATGATAGGCATCGC TTTCACGGGTTCAGGCAAGACACTGGTGTTCACGTTGCCCGTCATCATGTTCTGCCTGGAACAAGAGAAGAGGTT ACCCTTCTCAAAGCGCGCAGGGGCCCTATGGACTCATCTCTGCCCCTCGCGGGAGCTGGCCCGGCAGACCCATGG CATCCTGGAGTACTACTGCCGCCTGCTGCAGGAGGACAGCTCACCACTCCTGCGCTGCGCCCTCTGCATTGGGGG CATGTCCGTGAAAGAGCAGATGGAGACCATCCGACACGGTGTACACATGATGGTGGCCACCCCGGGGCGCCTCAT GGATTTGCTGCAGAAGAAGATGGTCAGCCTAGACATCTGTCGCTACCTGGCCCTGGACGAGGCTGACCGCATGAT CGACATGGGCTTCGAGGGTGACATCCGTACCATCTTCTCCTACTTCAAGGGCCAGCGACAGACCCTGCTCTTCAG TGCCACCATGCCGAAGAAGATTCAGAACTTTGCTAAGAGTGCCCTTGTAAAGCCTGTGACCATCAATGTGGGGCG CGCTGGGGCTGCCAGCCTGGATGTCATCCAGGAGGTAGAATATGTGAAGGAGGAGGCCAAGATGGTGTACCTGCT CGAGTGCCTGCAGAAGACACCCCCGCCTGTACTCATCTTTGCAGAGAAGAAGGCAGACGTGGACGCCATCCACGA CGAGGCATTCCGGGAGGGCAAGAAGGATGTCCTAGTAGCCACAGACGTTGCCTCCAAGGGCCTGGACTTCCCTGC CATCCAGCACGTCATCAATTAIGACATGCCAGAGGAGATTGAGAACTATGTACACCGGATTGGCCGCACCGGGCG CTCGGGAAACACAGGCATCGCCACTACCTTCATCAACAAAGCGTGTGATGAGTCAGTGCTGATGGACCTCAAAGC GCTGCTGCTAGAAGCCAAGCAGAAGGTGCCGCCCGTGCTGCAGGTGCTGCATTGCGGGGATGAGTCCATGCTGGA TATGCAGACCAAGCAGGTCAGCAACATCGGTCGCAAGGACTACCTGGCCCACAGCTCCATGGACTTCTGAGCCGA CAGTCTTCCCTTCTCCAAGAGGCCTCAGTCCCCAAGACTGCCACCAGTCTACACATACAGCAGCCCCCTGGAC AGAATCAGCATTTCAGCTCAGCTGGCCTGGAATGGGCCAGGCTGGTCCTGGCTGCTGTTCCCTGTGCTCTTCAG AATTACTGTTTTTGTTTCCTTTTACCCCAGCTGCCATTAAAGCCCAAACCTCTAGCCC

CCCAACGAGGCTCCCTGGAGCCCGACGCAGAGCAGCGCCCTGGCCGGGCCAAGCAGGAGCCGGCATCATGGATTC CTTCAAAGTAGTGCTGGAGGGGCCAGCACCTTGGGGCTTCCGGCTGCAAGGGGGCAAGGACTTCAATGTGCCCCT  $\verb|CTCCATTTCCCGGCTCACTCCTGGGGGCAAAGCGGCGCAGGCCGGAGTGGCCGTGGGTGACTGGGTGCTGAGCAT| \\$ CGATGGCGAGAATGCGGGTAGCCTCACACACACCATCGAAGCTCAGAACAAGATCCGGGCCTGCGGGGAGCGCCTCAG GTACACCTTTGCACCAGCGTCTCCCTCAACAAGACGGCCCGGCCCTTTGGGGCGCCCCGCCGCCGACAGCGC  $\verb|CCCGCAGCAGAATGGACAGCCGCTCGACCGCTGGTCCCAGATGCCAGCAGCAGCAGCGGCTGATGGAGAACACAGA|$  ${\tt CATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGCCCAGGACAGAAGCCCCAGCCCCAGCCTC}$ ATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCAGCCCTACCAGCCCCCGCCCTGGGCTGTGGACCC GCCGCTGCAGAGCCGCACCTCCATTGTGCAGGCAGCTGCCGGAGGGGTGCCAGGAGGGGGCAGCAACAACGGCAA  ${\tt GACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGGCCGCTACCTGGTGGCGCTACCACCCC}$ GGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTGGCTTCTTTGAGGAGAAGGGCCCCATCTT  $\tt CTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGTGCAAGAAGAAGATTACAGGCGAGATCAT$ CTTCTACATGGAGGGGGGGGCCCTATTGCGAGCGAGACTATGAGAAGATGTTTGGCACGAAATGCCATGGCTG TGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCTTCAGCTGGCATGACACCTGCTTCGTCTG TGCGATATGTCAGATCAACCTGGAAGGAAAGACCTTCTACTCCAAGAAGGACAGGCCTCTCTGCAAGAGCCATGC CTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

MDSFKVVLEGPAPWGFRLQGGKDFNVPLSISRLTPGGKAAQAGVAVGDWVLSIDGENAGSLTHIEAQNKIRACGE RLSLGLSRAQPVQSKPQKASAPAADPPRYTFAPSVSLNKTARPFGAPPPADSAPQQNGQPLRPLVPDASKQRLME NTEDWRPRPGTGQSRSFRILAHLTGTEFMQDPDEEHLKKSSQVPRTEAPAPASSTPQEPWPGPTAPSPTSRPPWA VDPAFAERYAPDKTSTVLTRHSQPATPTPLQSRTSIVQAAAGGVPGGGSNNGKTPVCHQCHKVIRGRYLVALGHA YHPEEFVCSQCGKVLEEGGFFEEKGAIFCPPCYDVRYAPSCAKCKKKITGEIMHALKMTWHVHCFTCAACKTPIR NRAFYMEEGVPYCERDYEKMFGTKCHGCDFKIDAGDRFLEALGFSWHDTCFVCAICQINLEGKTFYSKKDRPLCK SHAFSHV

GGGGGCGCGCCCCGCGCCTCCAGCCCAGCGCTCGGAGCCGCTTTCGCTGCCACTGTCTGCTCCCCCGGGCCGC GATGCCCATCTGGAGTGAGTGCAGGACCAGGTCCCGCGGGGCCCCGGGTGAGGCACGCCCGCGGCCCGCCGGCG TCACGTGCTTCGCCGGCTTCTGGCTCATCTGGGGTCTCATCGTCCTGCTGCTGCTGCTGCTGCAGCTTCCTGCGCCC GCCGCCTCAAACGGCGCCAGGAGGAGCGACTGCGCGAGCAGAACCTGCGCGCCCTAGAGCTGGAGCCCCTCGAAC TCGAGGGCAGTCTGGCCGGGAGTCCCCCGGGCCTGGCGCCGCCGCACCACCACCACCGTAGCCGCCTGGAGG CGCCGGCTCACGCGCACTCGCATCCGCACGTGCACGCGCTGCTGCACCACGGGCCCGCGCAGCCGCACG AGCCGCCGCCCTATAGCGAGGTGCTCACGGACACGCGCGCCTCTACCGCAAGATCGTCACGCCCTTCCTGA GTCGCCGCGACAGCGCGGAGAAGCAGCAGCCGCCTCCCAGCTACAAGCCGCTCTTCCTGGACCGGGGCTACA GCCGCCGGGTCTTCCCCAGCTGGACCGACTCAGAGCTCAGCAGCCGCGAGCCCCTGGAGCACGGAGCTTGGCGTC  ${\tt TGCCGGTCTCCATCCCCTTGTTCGGGAGGACTACAGCCGTA} \underline{{\tt TAG}} {\tt AGGGGGCGCCCGGGCCCCGGGCCCCACCGGC}$ AAAAAAAAA

 ${\tt MVMSQGTYTFLTCFAGFWLIWGLIVLLCCFCSFLRRRLKRRQEERLREQNLRALELEPLELEGSLAGSPPGLAPP} $$ QPPPHRSRLEAPAHAHSHPHVHVHPLLHHGPAQPHAHAHPHPHHHALPHPPTHLSVPPRPWSYPRQAESDMSKPPYEEAVLMAEPPPPYSEVLTDTRGLYRKIVTPFLSRRDSAEKQEQPPPSYKPLFLDRGYTSALHLPSAPRPAPPCPALCLQADRGRRVFPSWTDSELSSREPLEHGAWRLPVSIPLFGRTTAV$ 

WO 2004/030615 PCT/US2003/028547

#### 1989/6881 FIGURE 1828

CCTGCTGGTGAGCTTGGAGTCAACACTTTCGATTCCACCTTGGGAAGCCCCCAAGGAGCATAAGTACAAAGCTGA AGAGCACACTCGTTCTCACTGTCACCGGGGAGCCCTGCCACTTCCCCTTCCAGTACCACCGGCAGCTGTACCA CAAATGTACCCACAAGGGCCGGCCAGGCCCTCAGCCCTGGTGTGCTACCACCCCCAACTTTGATCAGGACCAGCG ATGGGGATACTGTTTGGAGCCCAAGAAGTGAAAGACCACTGCAGCAAACACCCCCTGCCAGAAAGGAGGGAC CTGTGTGAACATGCCAAGCGGCCCCCACTGTCTCTGTCCACAACACCTCACTGGAAACCACTGCCAGAAAGAGAA CCATGGGGGTCGCTAGAGGTGGAGGGCCACCGCCTGTGCCACTGCCCGGTGGGCTACACCGGACCCTTCTG  $\tt CGACGTGGACACCAAGGCAAGCTGCTATGATGGCCGCGGGCTCAGCTACCGCGGCCTGGCCAGGACCACGCTCTC$ GGGTGCGCCTGTCAGCCGTGGGCCTCGGAGGCCACCTACCGGAACGTGACTGCCGAGCAAGCGCGGAACTGGGG ACTGGGCGGCCACGCCTTCTGCCGGAACCCGGACAACGACATCCGCCCGTGGTGCTTCGTGCTGAACCGCGACCG GCTGAGCTGGGAGTACTGCGACCTGGCACAGTGCCAGACCCCAACCCAGGCGCGCCTCCGACCCCGGTGTCCCC TAGGCTTCATGTCCCACTCATGCCCGCGCAGCCGGCACCGCCGAAGCCTCAGCCCACGACCCGGACCCCGCCTCA GTCCCAGACCCCGGGAGCCTTGCCGGCGAAGCGGGAGCAGCCGCCTTCCCTGACCAGGAACGGCCCACTGAGCTG GGCCGCTCACTGCCTGCAGGACCGGCCCCGCACCCGAGGATCTGACGGTGGTGCTCGGCCAGGAACGCCGTAACCA CAGCTGTGAGCCGTGCCAGACGTTGGCCGTGCGCTCCTACCGCTTGCACGAGGCCTTCTCGCCCGTCAGCTACCA GCACGACCTGGCTCTGTTGCGCCTTCAGGAGGATGCGGACGGCAGCTGCGCGCTCCTGTCGCCTTACGTTCAGCC GGTGTGCCTGCCAAGCGGCGCCGCCGCCCCTCCGAGACCACGCTCTGCCAGGTGGCCGGCTGGGGCCACCAGTT CGAGGGGGGGGAGAATATGCCAGCTTCCTGCAGGAGGCGCAGGTACCGTTCCTCTCCCTGGAGCGCTGCTCAGC CCCGGACGTGCACGGATCCTCCATCCTCCCCGGCATGCTCTGCGCAGGGTTCCTCGAGGGCGGCACCGATGCGTG CCAGGGTGATTCCGGAGGCCCGCTGGTGTGTGAGGACCAAGCTGCAGAGCGCCGGCTCACCCTGCAAGGCATCAT CAGCTGGGGATCGGGCTGTGGTGACCGCAACAAGCCAGGCGTCTACACCGATGTGGCCTACTACCTGGCCTGGAT  ${\tt CCGGGAGCACCGTTTCC}{\tt TGA}{\tt TTGCTCAGGGACTCATCTTTCCCTCCTTGGTGATTCCGCAGTGAGAGAGTGGC$ TGGGGCATGGAAGGCAAGATTGTGTCCCCATTCCCCCAGTGCGGCCAGCTCCGCGCCAGGATGGCGAGGAACTCAA TAAAGTGCTTTGAAAATGCTGAG

MRALLLGFLLVSLESTLSIPPWEAPKEHKYKAEEHTVVLTVTGEPCHFPFQYHRQLYHKCTHKGRPGPQPWCAT
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YRTEQAAVARCQCKGPDAHCQRLASQACRTNPCLHGGRCLEVEGHRLCHCPVGYTGPFCDVDTKASCYDGRGLSY
RGLARTTLSGAPCQPWASEATYRNVTAEQARNWGLGGHAFCRNPDNDIRPWCFVLNRDRLSWEYCDLAQCQTPTQ
AAPPTPVSPRLHVPLMPAQPAPPKPQPTTRTPPQSQTPGALPAKREQPPSLTRNGPLSCGQRLRKSLSSMTRVVG
GLVALRGAHPYIAALYWGHSFCAGSLIAPCWVLTAAHCLQDRPAPEDLTVVLGQERRNHSCEPCQTLAVRSYRLH
EAFSPVSYQHDLALLRLQEDADGSCALLSPYVQPVCLPSGAARPSETTLCQVAGWGHQFEGAEEYASFLQEAQVP
FLSLERCSAPDVHGSSILPGMLCAGFLEGGTDACQGDSGGPLVCEDQAAERRLTLQGIISWGSGCGDRNKPGVYT
DVAYYLAWIREHTVS

ATC GCGGCGGAAGGCTGGATTTGGCGTTGGGGCTGGGGCCGGCGGTGCCTGGGAAGGCCTGGGCTTCTCGGCCCC GGCCCTGGCCCCACTACACCTCTCTTTCTTCTTTTGTTGTTGGGGTCTGTGACTGCGGATATAACTGACGGCAAC AGTGAACATCTCAAGCGGGAGCATTCGCTCATTAAGCCCTACCAAGGGGTCGGTTCCAGCTCTATGCCCCTCTGG ATCTGGAACCACCAGCCGTGCTTCCTCAAAGACTGGGAAATGCACGTCCACTTCAAAGTCCACGGCACAGGGAAG AAGAACCTCCATGGAGACGGCATCGCCTTGTGGTACACCCGGGACCGCCTCGTGCCAGGGCCTGTGTTTGGAAGC AAAGATAACTTCCACGGCTTAGCCATCTTCCTGGACACCTACCCCAATGATGAGACCACTGAGCGCGTGTTCCCG TACATCTCGGTGATGGTGAACAATGGCTCCCTGTCCTACGACCACAGCAAGGATGGGCGCTGGACCGAGCTGGCG GGCTGCACGGCTGACTTCCGCAACCGCGATCACGACACCTTCCTGGCTGTGCGCTACTCCCGGGGCCGTCTGACG GTGATGACCGACCTGGAGGACAAGAACGAGTGGAAGAACTGCATTGACATCACGGGAGTGCGCCTGCCCACCGGC TACTACTTCGGGGCCTCCGCCGGCACCGGCGACCTGTCTGACAATCATGACATCATCTCCATGAAGCTGTTCCAG CTGATGGTGGAGCACACGCCCGACGAGGAGAGCATCGACTGGACCAAGATCGAGCCCAGCGTCAACTTCCTCAAG TCGCCCAAAGACAACGTGGACGACCCCACGGGGAACTTCCGCAGCGGGCCCCTGACGGGGTGGCGGGTGTTCCTG CTGCTGCTGCGCTCTCCTGGGCATCGTTGTCTGCGCCGTGGTGGGGGCCGTGGTGTTCCAGAAGCGGCAGGAG  $\tt CGGAACAAGCGCTTCTAC\underline{TGA}_{G}TGGCGCCTCCGGCGGGGCCTGTCCCTGGGCCCAGGAGCCAATGTGAACTTTTT$ TCATACATTTTGCTTCTTGCCCAGCAGGGACAGGTGGCAGAGCCGAGGCTTAGGGTCTGGCACCCCCCACAGCTG GAGACGGAGGCTCTCCTGGGGCTGTTCTCAGGAGCAGGGGTCTGTGTCTACAGATGGGCTGTGGCCCCTGCAG GCAGCTGTTGAACACTGGAGGGTCCCCCGGACCACACTGGGGTGGGCTCCTGAGGAC

MAAEGWIWRWGWGRRCLGRPGLLGPGPGPTTPLFLLLLGSVTADITDGNSEHLKREHSLIKPYQGVGSSSMPLW DFQGSTMLTSQYVRLTPDERSKEGSIWNHQPCFLKDWEMHVHFKVHGTGKKNLHGDGIALWYTRDRLVPGPVFGS KDNFHGLAIFLDTYPNDETTERVFPYISVMVNNGSLSYDHSKDGRWTELAGCTADFRNRDHDTFLAVRYSRGRLT VMTDLEDKNEWKNCIDITGVRLPTGYYFGASAGTGDLSDNHDIISMKLFQLMVEHTPDEESIDWTKIEPSVNFLK SPKDNVDDPTGNFRSGPLTGWRVFLLLLCALLGIVVCAVVGAVVFQKRQERNKRFY

PCT/US2003/028547

#### 1993/6881 FIGURE 1832

# FIGURE 1833

## FIGURE 1834

CAACTCATGGCGGCGGCGGCGGCGGCAGCTGCTTGGGCGCGGTGCGGTGACTGAGCTACGAGCCTGGCG GCGGGTGTGCGCCGAGCCCCGGCCCGGCCCTCGCGTGCCTCCCAGGCTCCGCACCCCTGATGCTGCGCGG  ${\tt AAGTGTTCGCCGCCTTCTGGCAGCGGTACCCGAATCCCTATAGCAAACATGTCTTGACGGAAGACATAGTACACC}$ GGGAGGTGACCCTGACCAGAAACTGCTGTCCCGGCGACTCCTGACCAAGACCAACAGGATGCCACGCTGGGCCG  ${\tt AGCGACTATTTCCTGCCAATGTTGCTCACTCGGTGTACGTCCTGGAGGACTCTATTGTGGACCCACAGAATCAGA}$ CCATGACTACCTTCACCTGGAACATCAACCACGCCCGGCTGATGGTGGTGGAGGAACGATGTGTTTACTGTGTGA ACTCTGACAACAGTGGCTGGACTGAAATCCGCCGGGAAGCCTGGGTCTCCTCTAGCTTATTTGGTGTCTCCAGAG CTGTCCAGGAATTTGGTCTTGCCCGGTTCAAAAGCAACGTGACCAAGACTATGAAGGGTTTTGAATATATCTTGG CTAAGCTGCAAGGCGAGGCCCCTTCCAAAACACTTGTTGAGACAGCCAAGGAAGCCAAGGAGAAAGGCAAAGGAGA CGGCACTGGCAGCTACAGAGAAGGCCAAGGACCTCGCCAGCAAGGCGCCACCAAGAAGCAGCAGCAGCAAC TACTTTATCATTAAAAATCAACTTCCAGCCCTGTCTGCTGTCTACGTGGTGGGTTGTGGGGATGCAGTTTGGCAT CTGCAGTACACCAAGCACATGATTCATGTCTGAGCCAGGTCTGCTTATTCTCCCATTGGGCAGCTGAGGACCGAG GCACAGAGGTGCGGTGACTTGCCCGGGGCTCCAGGTAGCCTGCAGGTTAACTGGCGGTAAGTGCTAGACTGTAAG CCCGACAAGGGCAGGGCTTTTGGTTTTGTTCTCTGATGTGTCTCAGTATCTAGCACATAATAGACACTCAATAAA TACTTGTTGAATTCAAA

MVKYFLGQSVLRSSWDQVFAAFWQRYPNPYSKHVLTEDIVHREVTPDQKLLSRRLLTKTNRMPRWAERLFPANVA HSVYVLEDSIVDPQNQTMTTFTWNINHARLMVVEERCVYCVNSDNSGWTEIRREAWVSSSLFGVSRAVQEFGLAR FKSNVTKTMKGFEYILAKLQGEAPSKTLVETAKEAKEKAKETALAATEKAKDLASKAATKKQQQQQQFV

GCGGAGGAGCCAGGTGAGGAGCCAGGAAGGCAGTTGGTGGGAAGTCCAGCTTGGGTCCCTGAGAGCTGTGAG AAGGAGATGCGGCTGCTGGCCCTGTTGGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTGTCCCTGGAG GCCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAGCAAGAGCAGGAGCTGACAGTAGCC CTTGGGCAGCCTGTGCGGCTGTGCGGCGGGCTGAGCGTGGTGGCCACTGGTACAAGGAGGGCAGTCGCCTG GCACCTGCTGGCCGTGTACGGGGCTGGAGGGGCCGCCTAGAGATTGCCAGCTTCCTACCTGAGGATGCTGGCCGC TACCTCTGCCTGGCACGAGGCTCCATGATCGTCCTGCAGAATCTCACCTTGATTACAGGTGACTCCTTGACCTCC TGGACACCCCCAGCGCATGGAGAAGAACTGCATGCAGTACCTGCGGGGAACACCGTCAAGTTCCGCTGTCCA GCTGCAGGCAACCCCACGCCCACCATCCGCTGGCTTAAGGATGGACAGGCCTTTCATGGGGAGAACCGCATTGGA GGCATTCGGCTGCGCCATCAGCACTGGAGTCTCGTGATGGAGAGCGTGGTGCCCTCGGACCGCGCACATACACC CCCATCCTGCAGGCCGGCCTCCCGGCCAACACCACAGCCGTGGTGGGCAGCGTGGAGCTGCTGTGCAAGGTG TACAGCGATGCCCAGCCCCACATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGT TTCCCCTATGTGCAAGTCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCCTGTACCTGCGGAACGTG ACGGTGCTGCCAGAGGAGGACCCCACATGGACCGCAGCAGCGCCCGAGGCCAGGTATACGGACATCATCCTGTAC GCGTCGGGCTCCCTGGCCTTGGCTGCTGCTGCTGCCGGGCTGTATCGAGGGCAGGCGCTCCACGGCCGG CACCCCGCCGCCGCCACTGTGCAGAAGCTCTCCCGCTTCCCTCTGGCCCGACAGTTCTCCCTGGAGTCAGGC CTCGTGAGTCTAGATCTACCTCTCGACCCACTATGGGAGTTCCCCCGGGACAGGCTGGTGCTTGGGAAGCCCCTA GGCGAGGGCTGCTTTGGCCAGGTAGTACGTGCAGAGGCCTTTGGCATGGACCCTGCCCGGCCTGACCAAGCCAGC ACTGTGGCCGTCAAGATGCTCAAAGACACGCCTCTGACAAGGACCTGGCCGACCTGGTCTCGGAGATGGAGGTG ATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCTTGGTGTCTGCACCCAGGAAGGGCCCCTGTACGTG ATCGTGGAGTGCGCCGCAAGGGAAACCTGCGGGAGTTCCTGCGGGCCCGGCGCCCCCAGGCCCCGACCTCAGC CCCGACGGTCCTCGGAGCAGTGAGGGGCCGCTCTCCTTCCCAGTCCTGGTCTCCTGCGCCTACCAGGTGGCCCGA GGCATGCAGTATCTGGAGTCCCGGAAGTGTATCCACCGGGACCTGGCTGCCCGCAATGTGCTGGTGACTGAGGAC AATGTGATGAAGATTGCTGACTTTGGGCTGGCCCGCGGCGTCCACCACATTGACTACTATAAGAAAACCAGCAAC  ${\tt TCTTTTGGGATCCTGCTATGGGAGATCTTCACCCTCGGGGGGCTCCCCGTATCCTGGCATCCCGGTGGAGGAGCTG}$ TTCTCGCTGCTGCGGGAGGGACATCGGATGGACCGACCCCCACACTGCCCCCCAGAGCTGTACGGGCTGATGCGT GAGTGCTGGCACGCAGCGCCCTCCCAGAGGCCTACCTTCAAGCAGCTGGTGGAGGCGCTGGACAAGGTCCTGCTG GCCGTCTCTGAGGAGTACCTCGACCTCCGCCTGACCTTCGGACCCTATTCCCCCTCTGGTGGGGACGCCAGCAGC ACCTGCTCCTCCAGCGATTCTGTCTTCAGCCACGACCCCTGCCATTGGGATCCAGCTCCTTCCCCTTCGGGTCT CAGCCTGACACAGTGCTCGACCTTGATAGCATGGGGCCCCTGGCCCAGAGTTGCTGTGCCGTGTCCAAGGGCCGT GCCCTTGCCCTTGGAGCTGCCGTGCCTGTGTCCTGATGGCCCAAATGTCAGGGTTCTGCTCGGCTTCTTGGACCA ACCAGCAGGAGGTTCTGGGCCTCTGAACCCCCTTTCCCCACACCTCCCCCTGCTGCTGCTGCCCCAGCGTCTTGA CGGGAGCATTGGCCCCTGAGCCCAGAGAAGCTGGAAGCCTGCCGAAAACAGGAGCAAATGGCGTTTTATAAATTA TTTTTTTGAAATAAA

MRLLLALLGVLLSVPGPPVLSLEASEEVELEPCLAPSLEQQEQELTVALGQPVRLCCGRAERGGHWYKEGSRLAP
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GSLALAVLLLLAGLYRGQALHGRHPRPPATVQKLSRFPLARQFSLESGSSGKSSSSLVRGVRLSSSGPALLAGLV
SLDLPLDPLWEFPRDRLVLGKPLGEGCFGQVVRAEAFGMDPARPDQASTVAVKMLKDNASDKDLADLVSEMEVMK
LIGRHKNIINLLGVCTQEGPLYVIVECAAKGNLREFLRARRPPGPDLSPDGPRSSEGPLSFPVLVSCAYQVARGM
QYLESRKCIHRDLAARNVLVTEDNVMKIADFGLARGVHHIDYYKKTSNGRLPVKWMAPEALFDRVYTHQSDVWSF
GILLWEIFTLGGSPYPGIPVEELFSLLREGHRMDRPPHCPPELYGLMRECWHAAPSQRPTFKQLVEALDKVLLAV
SEEYLDLRLTFGPYSPSGGDASSTCSSSDSVFSHDPLPLGSSSFPFGSGVQT

GCGGAGGAGCCAGGTGAGGAGGCCAGGAAGGCAGTTGGTGGGAAGTCCAGCTTGGGTCCCTGAGAGCTGTGAG AAGGAGATGCGGCTGCTGGCCCTGTTGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTGTCCCTGGAG GCCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAGCAAGAGCAGGAGCTGACAGTAGCC CTTGGGCAGCCTGTGCGGCTGTGGGCGGGCTGAGCGTGGTGGCCACTGGTACAAGGAGGGCAGTCGCCTG GCACCTGCTGGCCGTGTACGGGGCTGGAGGGGCCGCCTAGAGATTGCCAGCTTCCTACCTGAGGATGCTGGCCGC TACCTCTGCCTGGCACGAGGCTCCATGATCGTCCTGCAGAATCTCACCTTGATTACAGGTGACTCCTTGACCTCC TGGACACCCCCAGCGCATGGAGAAGAACTGCATGCAGTACCTGCGGGGAACACCGTCAAGTTCCGCTGTCCA GCTGCAGGCAACCCCACCCACCATCCGCTGGCTTAAGGATGGACAGGCCTTTCATGGGGAGAACCGCATTGGA GGCATTCGGCTGCGCCATCAGCACTGGAGTCTCGTGATGGAGAGCGTGGTGCCCTCGGACCGCGCACATACACC TGCCTGGTAGAGAACGCTGTGGGCAGCATCCGCTATAACTACCTGCTAGATGTGCTGGAGCGGTCCCCGCACCGG TACAGCGATGCCCAGCCCCACATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGT TTCCCCTATGTGCAAGTCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCCTGTACCTGCGGAACGTG TCCTCCAGCGGCCCCGCCTTGCTCGCCGGCCTCGTGAGTCTAGATCTACCTCTCGACCCACTATGGGAGTTCCCC ATGGACCCTGCCCGGCCTGACCAAGCCAGCACTGTGGCCGTCAAGATGCTCAAAGACAACGCCTCTGACAAGGAC CTGGCCGACCTGGTCTCGGAGATGGAGGTGATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCTTGGT GTCTGCACCCAGGAAGGGCCCCTGTACGTGATCGTGGAGTGCGCCGCCAAGGGAAACCTGCGGGAGTTCCTGCGG GCCCGGCGCCCCCAGGCCCCGACCTCAGCCCCGACGTCCTCGGAGCAGTGAGGGGCCGCTCTCCTTCCCAGTC CTGGTCTCCTGCGCCTACCAGGTGGCCCGAGGCATGCAGTATCTGGAGTCCCGGAAGTGTATCCACCGGGACCTG GCTGCCCGCAATGTGCTGGTGACTGAGGACAATGTGATGAAGATTGCTGACTTTGGGCTGGCCCGCGGCGTCCAC  $\tt CGGGTGTACACACACAGAGTGACGTGTGGTCTTTTGGGATCCTGCTATGGGAGATCTTCACCCTCGGGGGCTCC$ TGCCCCCAGAGCTGTACGGGCTGATGCGTGAGTGCTGGCACGCAGCGCCCTCCCAGAGGCCTACCTTCAAGCAG CTGGTGGAGGCGCTGGACAAGGTCCTGCTGGCCGTCTCTGAGGAGTACCTCGACCTCCGCCTGACCTTCGGACCC TATTCCCCCTCTGGTGGGGACGCCAGCAGCACCTGCTCCTCCAGCGATTCTGTCTTCAGCCACGACCCCCTGCCA  ${\tt TTGGGATCCAGCTCCTTCCCCTTCGGGTCTGGGGTGCAGACA} {\tt TGA}{\tt GCAAGGCTCAAGGCTGTGCAGGCACATAGG}$ CTGGTGGCCTTGGGCCTCAGCCACAGCCTGACACAGTGCTCGACCTTGATAGCATGGGGCCCCTGGCC CAGAGTTGCTGTGCCGTGTCCAAGGGCCGTGCCCTTGCCCTTGGAGCTGCCGTGCCTGTGTCCTGATGGCCCAAA GCTGCTATGCTAAACCTCCTGCCTCCCAATACCAGCAGGAGGTTCTGGGCCTCTGAACCCCCTTTCCCCACACCT CCCCTGCTGCTGCCCCAGCGTCTTGACGGGAGCATTGGCCCCTGAGCCCAGAGAAGCTGGAAGCCTGCCGA AAACAGGAGCAAATGGCGTTTTATAAATTATTTTTTTGAAATAAA

MRLLLALLGVLLSVPGPPVLSLEASEEVELEPCLAPSLEQQEQELTVALGQPVRLCCGRAERGGHWYKEGSRLAP
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LQFSLESGSSGKSSSSLVRGVRLSSSGPALLAGLVSLDLPLDPLWEFPRDRLVLGKPLGEGCFGQVVRAEAFGMD
PARPDQASTVAVKMLKDNASDKDLADLVSEMEVMKLIGRHKNIINLLGVCTQEGPLYVIVECAAKGNLREFLRAR
RPPGPDLSPDGPRSSEGPLSFPVLVSCAYQVARGMQYLESRKCIHRDLAARNVLVTEDNVMKIADFGLARGVHHI
DYYKKTSNGRLPVKWMAPEALFDRVYTHQSDVWSFGILLWEIFTLGGSPYPGIPVEELFSLLREGHRMDRPPHCP
PELYGLMRECWHAAPSQRPTFKQLVEALDKVLLAVSEEYLDLRLTFGPYSPSGGDASSTCSSSDSVFSHDPLPLG
SSSFPFGSGVQT

GGCACCGCGGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCCGTGCGGCGGCGGCCAAGGAGGAGGAGACACA GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGCGGCCGAGCCTGCGGCGC CTTCCCCTGCGGTGGGGACGAGCGGCCCCGCGCGTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGCA TGTCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCCCCCCGAGAACGGACATGAGGCCGTCCCCGAAG GCGAGTCGCCGGCCGGGCTGGCACGGGCGCCGCGGGGGGCTGGAGGCGCGACCGCGCCCCCGAGCGGGA ATCAGAACGGCGCCGAGGGCCAGATCAACGCCAGCAAGAACGAGGAGGAGGACGCGGGAAAAATGTTCGTTGGTG GCCTGAGCTGGGATACTAGCAAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAA TAAAAATGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGA AGGTCCTAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAAGGCCATGGCTATGAAGAAGG ACCCGGTGAAGAAAATCTTCGTTGGGGGTCTGAATCCTGAAGCCACTGAGGAAAAGATCAGGGAGTACTTTGGCG AGTTTGGGGAGATTGAGCCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTTGTGTTTATCA CCTTTAAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAGTTCCATACTGTCAGTGGAAGCAAGTGTGAGA TCAAGGTGGCCCAGCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAAACCGCAACCGAG GCAACCGAGGCAGCGGAGGTGGTGGAGGTGGAGGTCAGGGTAGTACAAACTACGGCAAGAGCCAGCGACGTG GTGGCCATCAGAATAACTACAAGCCATACTGAGGCGGCAGCAGGAGCGACCAACTGATCGCACACATGCTTTGTT TGGATATGGAGTGAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCCTGTCCCATGTGCATCTT ATTTAAAATTTCCCCCATGGAAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGG TGTCTGAGAGGCCATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGGGAGGCTCTGC TTCCTGCTGCCGCTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTG TCACCTTTTTTCACCTTTTAATTTATTATTATTTGCGTCATACATTTCCTGTAACGGAAGTGTTAATTTTACTG TACTTTTTGGTACCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGG ATATTGAAGCTATCCAAGCTTTTGAAATAAAATTTAAAAACCCCCAAGCCTGGGTGAGTGTGGG

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GGCACCGCGGGGACGAGCTTGGCTGTTGGTCGGTGGGTTCCCGTGCGGCGGCGGCCAAGGAGGAGAACACA GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGCGGCCGAGCCTGCGGCGC CTTCCCCTGCGGGTGGGGACGAGCGGGCCCCGCGCGTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGCA TGTCGGAAGCGGGCGAGGAGCACCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG GCGAGTCGCCGGCCGGGGCTGGCACGGCGCGCGCGGGGGGCTGGAGGCGCGCCCCCGAGCGGGA ATCAGAACGGCGCCGAGGGCCAGCAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGAAAAATGTTCGTTGGTG GCCTGAGCTGGGATACTAGCAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAA TAAAAATGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGA AGGTCCTAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAGGCCCATGGCTATGAAGAAGG ACCCGGTGAAGAAAATCTTCGTTGGGGGTCTGAATCCTGAAGCCACTGAGGAAAAGATCAGGGAGTACTTTGGCG AGTTTGGGGAGATTGAGCCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTTGTGTTTATCA CCTTTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCATACTGTCAGTGGAAGCCAGTGTGAGA TCAAGGTGGCCCAGCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAAACCGCAACCGAG GGAACCGAGGCAGCGGAGGTGGTGGAGGTGGAGGTCAGGGTAGTACAAACTACGGCAAGAGCCAGCGACGTG GTGGCCATCAGAATAACTACAAGCCATACTGAGGCGGCAGCAGGAGCGACCAACTGATCGCACACATGCTTTGTT TGGATATGGAGTGAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCCTGTCCCATGTGCATCTT ATTTAAAATTTCCCCCATGGAAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGG TGTCTGAGAGGCCATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGGGAGGCTCTGC TTCCTGCTGCCGCTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTG TCACCTTTTTTTCACCTTTTAATTTTATATTATTTGCGTCATACATTTCCTGTAACGGAAGTGTTAATTTTACTG TACTTTTTGGTACCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGG ATATTGAAGCTATCCAAGCTTTTGAAATAAAATTTAAAAACCCCCAAGCCTGGGTGAGTGTGGG

GAAATGTCTTACGATGATCATTTAGAGGTTTATTTTGAACAACTGGCAATTCCACGAATGATGGAATAAAACATA TGAAGTAGAAGGACTGGAACCTCCAGAAAAAGTACTTTAAGTTACCTACAGGTGATCCTAGTCAGGTATGAATTG ATAAGAAATGCCTGCACCTTCCCTCCTTCCTATCTTTCCCTTGCCTACAGAAAATTAAAAGGCAAAACAATGGAC GTACTTTCTTCTGAATCATTTGAAAGCAAATGAAAACAGTAGCCTAAAGTGTCAGTTTCAACCAGAAAATAAC ACCTGGGACTAGTGGGATGAGAGACTGAGAAAAGAAATAAGACACGGAGACAAAGTACAGAGAAAAGAACAGCGGG  ${\tt CCCAGGAGACCGGCACTCAGCATACGGAGGACCAGCACTGGCACCGGCCTCTGAGTTCCCTCAGTTTATTGATTA}$ CCATTTTCAGTGTCTCAGCAAGAGGGATGCGGTAGGAGAGCAGGGTGTCAGCAAGAAAACCTGTGAGCCTTTCCT TTCGCTGCTGCGGCCGCAGCCATGAGCATGCTCGGGCCTCAGAAGAGGCTCGCCTCTAGTGTCCTCCGCTGTGGC AAGAAGAAGGTCTGGTTAGACCCCAGTGAGACCAATGAAATCGCCAATGCCAACTCCCGTCAGCAGATCCGGAAG CTCATCAAAGACGGGCTGATCATCCGCAAGCCTGTGACGGTCCATTCCCGGGCTCGATGCCGGAAAAACACCTTG GCCCGCCGGAAGGCCACGTGGCCATAGGTGAGCAGAAGGGTACAGCCAATGCCCGAATGCCAGAGAAGGTC ACGTATCACAGCCTGTACCTGAAGGTGAAGGGGAATGTGTTCAAAGACAAGCGGATTCTCATGGAACACATCCAC AAGCTGAAGGCAGACAAGGCCCGCAAGAAGCTCCTGGCTGACCAGGCTGAGGCCCGCAGGTCTAAGACCAAGGAA GCAGGCAAGTGCCCTGAAGAGCGCCTCCAGGCCAAGAAGGAGGAGTTCATCAAGACTTTATCCAAGGAGGAAGAG ACCAAGAATAAAAGCTCCCCCTTTGTCTGTACATACTGGCCTCTGTGATTACATAGATCAGCCATGAAAATAAA ACAAGCCTTAA

CCCGGAGTGTGAGCTGAGTGCTCCGAGCTATACCTGTGGACATTGGTTTCTCCATTGAAGAGCTGGAGGACCTTT ACATGGTGTTTAAGGCCAAGCACCTGGCTAGCCAGTACTGGGGGTGCAGCCGCACA**ATG**GCCGGCCGTCGGGACC GGGCCTGTGGCTCCCACACACCTCTGCTGGCAGGGCGCATGTTCAGGCTCCTGGACGAAAACAAGGACTCGCTGA TCAACTTCAAGGAGTTCGTGACAGGGATGAGCGGGATGTACCACGGGTACCTGACAGAGAAGCTCAAGGTGCTCT ACAAGCTACACCTTCCCCCAGCTCTGAGCCCAGAGGAAGCCGAGTCAGCCCTGGAGGCGGCCCATTATTTCACAG AGGGGACCAGCTCTCCGGACTATCGGCACTACCTTCGAATGTGGGCCAAGGAGAAAGAGGCTCAGAAGGAGACGA TTAAGGATCTTCCCAAGATGAACCAGGAGCAGTTCATTGAGCTGTGCAAGACGCTTTACAACATGTTCAGTGAAG ACCCCATGGAGCAGGACCTGTACCACGCCATCGCCACCGTGGCCAGCCTCCTGCTCCGCATCGGAGAGGTGGGGA AGAAGTTCTCAGCCCGCACAGGCAGGCAGGCCCAGGGACTGTGCCCACTGAGGAGGACGAGCCACCAGCACCCGAAC TGCATCAGGACGCAGCCAGGGAGCTTCAGCCCCCAGCTGCAGGAGACCCCCAAGCCAAAGCAGGCGGAGACACAC ACCTCGGAACAGCCCCACAGGAGAGCCAGGTGGTGGTGGAGGGGGGCAGCGGCGAGGGACAGGGCTCACCCTCCC AGCTGCTGTCTGACGATGAAACCAAAGACGACATGTCCATGTCCTCCTACTCGGTGGTCAGCACGGGCTCCCTGC AATGTGAAGACCTTGCAGACGACACGGTGCTGGTGGGCGGGGAGGCCTGCAGCCCCACAGCGCGCATCGGCGGCA  $\tt CCGTCGACACCGACTGGTGCATCTCTTTGAGCAGATCCTGGCCTCCATCCTGACGGAGTCCGTGCTGGTGAACT$ GTGACCATGAGCAGCCTGGAGTTTCCGGCTGATGCCTGCAGCTGTGAGGCCTGGCCCAAGGTGTCATCAGTGGGG  $\tt CTGGCCTCATCTCCTGCCTTTCCTCCCTTATCAGTTTCTCTTTAAAGGTGTGCCCCTCCTGCTCTCCCAGGA$ GCAGTGAGTTGTGAGTGGAAAGAAGGCTGGTGCAGACCCAGCTGCCTTAGACAGATTCCCTGGGCCTGCATCTCC GCGGCCAGCCAGCTGAGTCCCTCCATCCGTGGATGCTTTCCTGCAGCTATGTGGTATGGGGGGTCATTCCTGCCT CTTG:CACCAGGTTGGGGGGCATGTGCTTGTTGGGCACCAAAGTGATGGAACCCTCAGGTGCTCTCCGGGAGCCT GAACCTCCTGACTGAGGAACATGGGCAGAACATGTTTATTGCACAGAGTGGGCGCTGCGCACAGGCGTGGCTGTA CACGTGCTCTCAGCTCATCCTTTCCAGTAACTTTAAAAAAACATCCCTCAGGTCCTGATATATTTCCTTGGA TGCAATGCCTTGCTGTGGCCCCCAACCACTGCTTAGGCCTCCCAACTTCTCCCCAGGCCAAGTATGGGGCCCTGG GACGCAGAACCTGCTGGTGCAAGCTGGGCAGGTCCTGACCAACCTGCATCAGGGGATGCCCTGAGCTCCACAGGT CTTCATGGGCAGGGGTTGTGGGTCCTGGTGAAGGAAGTGCATCCTCAGGCCTGGGCTGTAGCAAGCTGTCTGCCC TTGGGTTCAAGAACCAGACTGTGGAGCCAAAGGTGACCGCAGGGGCCCCAGGGCTGGAGCCACAAGGATACCCT CACTTTGCATGAGGAGCTGAAACTGACCAGTGTCCAGTGTTAGCCCCCACATGGGGCTGCTCTTGCTTCTACTAA AAGATACAGCAGTTACCCCCTTATCCACAGGGGATACAGTGGATATCTAAAACCAGACCCCCAGTGGATGTCTAA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MAGRRDPSLPYLEQYRIDASQFRELFASLTPWACGSHTPLLAGRMFRLLDENKDSLINFKEFVTGMSGMYHGYLT EKLKVLYKLHLPPALSPEEAESALEAAHYFTEDSSSEEALPQEEQEGSGSEERGEEKGTSSPDYRHYLRMWAKEK EAQKETIKDLPKMNQEQFIELCKTLYNMFSEDPMEQDLYHAIATVASLLLRIGEVGKKFSARTGRKPRDCATEED EPPAPELHQDAARELQPPAAGDPQAKAGGDTHLGTAPQESQVVVEGGSGEGQGSPSQLLSDDETKDDMSMSSYSV VSTGSLQCEDLADDTVLVGGEACSPTARIGGTVDTDWCISFEQILASILTESVLVNFFEKRVDIGLKIKDQKKVE RQFSTASDHEQPGVSG

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CTACCTTCTGGGCAAGGAGGACGCGGCGCGGAGATTCGCCGCTTCAGCTTCTGCTGCAGCCCCGAGCCTGAGGC GGAAGCCGAGGCTGCGGCGGGTCCGGGACCCTGCGAGCGGCTGCTGAGCCGGGTGGCCGCCCTGTTCCCCGCGCT GCGGCCTGGCGGCTTCCAGGCGCACTACCGCGATGAGGACGGGACTTGGTTGCCTTTTCCAGTGACGAGGAATT GACAATGGCCATGTCCTACGTGAAGGATGACATCTTCCGAATCTACATTAAAGAGAAAAAAAGAGTGCCGGCGGGA CCACCGCCCACCGTGTGCTCAGGAGGCGCCCCGCAACATGGTGCACCCCAATGTGATCTGCGATGGCTGCAATGG GCCTGTGGTAGGAACCCGCTACAAGTGCAGCGTCTGCCCAGACTACGACTTGTGTAGCGTCTGCGAGGGAAAGGG CTTGCACCGGGGGCACACCAAGCTCGCATTCCCCAGCCCCTTCGGGCACCTGTCTGAGGGCTTCTCGCACAGCCG CTGGCTCCGGAAGGTGAAACACGGACACTTCGGGTGGCCAGGATGGGAAATGGGTCCACCAGGAAACTGGAGCCC ACGTCCTCCTCGTGCAGGGGAGGCCCGCCCTGGCCCCACGGCAGAATCAGCTTCTGGTCCATCGGAGGATCCGAG TGTGAATTTCCTGAAGAACGTTGGGGAGAGTGTGGCAGCTGCCCTTAGCCCTCTGGGCATTGAAGTTGATATCGA TGTGGAGCACGGAGGGAAAAGAAGCCGCCTGACCCCCGTCTCTCCAGAGAGTTCCAGCACAGAGGAGAAGAGCAG CTCACAGCCAAGCAGCTGCTGCTCTGACCCCAGCAAGCCGGGTGGGAATGTTGAGGGCGCCACGCAGTCTCTGGC GGAGCAGATGAGGAAGATCGCCTTGGAGTCCGAGGGGCCCCTGAGGAACAGATGGAGTCGGATAACTGTTCAGG AGGAGATGATGACTGGACCCATCTGTCTTCAAAAGAAGTGGACCCGTCTACAGGTGAACTCCAGTCCCTACAGAT  $\tt CCCACATCTCCCGCCAGAGGCTGACCCGCGGCTGATTGAGTCCCTCTCCCAGATGCTGTCCATGGGCTTCTCTGA$ TGAAGGCGGCTGGCTCACCAGGCTCCTGCAGACCAAGAACTATGACATCGGAGCGGCTCTGGACACCATCCAGTA  $\tt TTCAAAGCATCCCCGCCGTTGTGACCACTTTTGCCCACCTCTTCTGCGTGCCCCTCTTCTGTCTCATAGTTGTG$ TTAAGCTTGCGTAGAATTGCAGGTCTCTGTACGGGCCAGTTTCTCTGCCTTCTTCCAGGATCAGGGGTTAGGGTG GGGTGCCCTGGCTCCTTGCAGCAGGGCTGGGCCTGCGAGACCCAAGGCTCACTGCAGCGCGCTCCTGACCCCTCC CTGCAGGGGCTACGTTAGCAGCCCAGCACATAGCTTGCCTAATGGCTTTCACTTTCTCTTTTGTTTTAAATGACT CATAGGTCCCTGACATTTAGTTGATTATTTTCTGCTACAGACCTGGTACACTCTGATTTTAGATAAAGTAAGCCT AGGTGTTGTCAGCAGGCAGGCTGGGGAGGCCAGTGTTGTGGGCTTCCTGCTGGGACTGAGAAGGCTCACGAAGGG CATCCGCAATGTTGGTTTCACTGAGAGCTGCCTCCTGGTCTCTTCACCACTGTAGTTCTCTCATTTCCAAACCAT CAGCTGCTTTTAAAATAAGATCTCTTTGTAGCCATCCTGTTAAATTTGTAAACAATCTAATTAAATGGCATCAGC ACTTTAACCAAT

WO 2004/030615 PCT/US2003/028547

#### 2007/6881 FIGURE 1846

TGCAGCCTCGGCCCCGCGGGCGCCCCGCGCACCCGAGGAGATGAGGCTCCGCAATGGCACCTTCCTGACGCTG CTGCTCTTCTGCCTGTGCGCCTTCCTCTCGCTGTCCTGGTACGCGGCACTCAGCGGCCAGAAAGGCGACGTTGTG GACGTTTACCAGCGGGAGTTCCTGGCGCTGCGCGATCGGTTGCACGCAGCTGAGCAGGAGAGCCTCAAGCGCTCC AATCGCACCTGGGGCCGCCTAACAGAGGACCCCCGATTGAAGCCGTGGAACGGCTCACACCGGCACGTGCTGCAC CTGCCCACCGTCTTCCATCACCTGCCACACCTGCTGGCCAAGGAGAGCAGTCTGCAGCCCGCGGTGCGCGTGGGC ACTCTGCACTCGCTCATCTCCGAGCTGAGCCCGCAGGAGAAGGAGGACTCGGTCATCGTGGTGCTGATCGCCGAG ACTGACTCACAGTACACTTCGGCAGTGACAGAGAACATCAAGGCCTTGTTCCCCACGGAGATCCATTCTGGGCTC CTGGAGGTCATCTCACCCTCCCCCCACTTCTACCCTGACTTCTCCCGCCTCCGAGAGTCCTTTGGGGACCCCAAG GAGAGAGTCAGGTGGAGGACCAAACAGAACCTCGATTACTGCTTCCTCATGATGTACGCGCAGTCCAAAGGCATC TACTACGTGCAGCTGGAGGATGACATCGTGGCCAAGCCCAACTACCTGAGCACCATGAAGAACTTTGCACTGCAG CAGCCTTCAGAGGACTGGATGATCCTGGAGTTCTCCCAGCTGGGCTTCATTGGTAAGATGTTCAAGTCGCTGGAC CTGAGCCTGATTGTAGAGTTCATTCTCATGTTCTACCGGGACAAGCCCATCGACTGGCTCCTGGACCATATTCTG TGGGTGAAAGTCTGCAACCCCGAGAAGGATGCGAAGCACTGTGACCGGCAGAAAGCCAACCTGCGGATCCGCTTC TTTGGAAAGCAGGCGCTGCGGAAGGAGCATGTGAACCCGCCAGCAGAGGTGAGCACGAGCCTGAAGACATACCAG CACTTCACCCTGGAGAAAGCCTACCTGCGCGAGGACTTCTTCTGGGCCTTCACCCCTGCCGCGGGGGACTTCATC CGCTTCCGCTTCTTCCAACCTCTAAGACTGGAGCGGTTCTTCTTCCGCAGTGGGAACATCGAGCACCCGGAGGAC CGCACCGCCACCCTCCGGTACCCTCGGAGCCCCGACGGCTACCTCCAGATCGGCTCCTTCTACAAGGGAGTGGCA GAGGGAGAGGTGGACCCAGCCTTCGGCCCTCTGGAAGCACTCCGCCTCTCGATCCAGACGGACTCCCCTGTGTGG GTGATTCTGAGCGAGATCTTCCTGAAAAAGGCCGAC<u>TAA</u>GCTGCGGGCTTCTGAGGGTACCCTGTGGCCAGCCCT GAAGCCCACATTTCTGGGGGTGTCGTCACTGCCGTCCCCGGAGGGCCAGATACGGCCCCGCCCAAAGGGTTCTGC CCGGGCCGCGAGGAGGCGGCCCCCACACTGTGCCTGAGGCCCGGAACCGTTCGCACCCGGCCTGCCCCAG TCAGGCCGTTTTAGAAGAGCTTTTACTTGGGCGCCGCCGTCTCTGGCGCGAACACTGGAATGCATATACTACTT TATGTGCTGTGTTTTTTATTCTTGGATACATTTGATTTTTCACGTAAGTCCACATATACTTCTATAAGAGCGTG ACTTGTAATAAAGGGTTAATGAAG

MRLRNGTFLTLLLFCLCAFLSLSWYAALSGQKGDVVDVYQREFLALRDRLHAAEQESLKRSKELNLVLDEIKRAV SERQALRDGDGNRTWGRLTEDPRLKPWNGSHRHVLHLPTVFHHLPHLLAKESSLQPAVRVGQGRTGVSVVMGIPS VRREVHSYLTDTLHSLISELSPQEKEDSVIVVLIAETDSQYTSAVTENIKALFPTEIHSGLLEVISPSPHFYPDF SRLRESFGDPKERVRWRTKQNLDYCFLMMYAQSKGIYYVQLEDDIVAKPNYLSTMKNFALQQPSEDWMILEFSQL GFIGKMFKSLDLSLIVEFILMFYRDKPIDWLLDHILWVKVCNPEKDAKHCDRQKANLRIRFKPSLFQHVGTHSSL AGKIQKLKDKDFGKQALRKEHVNPPAEVSTSLKTYQHFTLEKAYLREDFFWAFTPAAGDFIRFRFFQPLRLERFF FRSGNIEHPEDKLFNTSVEVLPFDNPQSDKEALQEGRTATLRYPRSPDGYLQIGSFYKGVAEGEVDPAFGPLEAL RLSIQTDSPVWVILSEIFLKKAD

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#### 2009/6881 FIGURE 1848

TTTTCAGAGACTCGCCTGGCAGAGGCCTGGAGCGTCCTGCTGCGTGGACTGTGGGCACCGAGCCACCAGGAGGTT GTTGATCTCATTCTTGCTCACTGGTCCCTGCCAGACTGGTGGTGCCTCTCTACTGTCGGGCAGCCCCACCTCTGT GCTGCCCCATCCACCTACAGCCCTCATGCCTGGGCCCAGCTGGAGGTTCTGACAGGGGCCCCCTGGGGTGGCATG CGGACCCTTCAGGGTGCCCCAGGCGCAGCACAGGTCTCCAGAGACACAGGCACCAGGGCGTTCAGAGCTAGTCCC CTCGCTGCTGTTGACTGTCCTTGAGCAGCCCCAGGGCCGGTTTCTCAACCTCATTTGCTCACCTGAGCAATGAAG TGAGGTGGGCTCCTGGAACTGCAGCAGCCACCCCCCGGGGCCATCGTGAGGCTAAGAATCCAGTGCAGGGTGAGC TGCTGCAAAAAGCAAGAGTGGGCTTTGGAGGCCAACGGATGGAGCCGATTCAGTCTGAGGCTGTTCCAGCCCTTG CTTAGGATCCACCTAGGTCTGGAAATCGTATTTCCACTTCAGATGCCTTCTCAGAGGATAAAATAACCCCC GGTGGGGGAGAGTACTGGAAGAGGGCTAATTCCCCTGGTTTTCTCCCCATGAGCATTAGTGTCAGTGTAATTTTA GAGTGACCCCAGCT<u>ATC</u>TCACGTGTGGCAGGCACAAGAACAGATGTCAATGAGCTATTGCAGAGGTGGACACCCA GATGTGTGCGCTGGCACACTGGAGGGGCCCGTAGGGTGGCTCTAGACCGCCCCCTCGTGACGGCTTGCCTACCAC CTGCAGGCGACGTTGTGGACGTTTACCAGCGGGAGTTCCTGGCGCTGCGCGATCGGTTGCACGCAGCTGAGCAGG TGCGAGACGGAGACGGCAATCGCACCTGGGGCCGCCTAACAGAGGACCCCCGATTGAAGCCGTGGAACGGCTCAC ACCGGCACGTGCTGCACCTGCCCACCGTCTTCCATCACCTGCCACACCTGCTGGCCAAGGAGAGCAGTCTGCAGC ACTCGTACCTGACTCTGCACTCGCTCATCTCCGAGCTGAGCCCGCAGGAGAAGGAGGACTCGGTCATCG TGGTGCTGATCGCCGAGACTGACTCACAGTACACTTCGGCAGTGACAGAGAACATCAAGGCCTTGTTCCCCACGG AGATCCATTCTGGGCTCCTGGAGGTCATCTCACCCTCCCCCACTTCTACCCTGACTTCTCCCGCCTCCGAGAGT CCTTTGGGGACCCCAAGGAGAGTCAGGTGGAGGACCAAACAGAACCTCGATTACTGCTTCCTCATGATGTACG CGCAGTCCAAAGGCATCTACTACGTGCAGCTGGAGGATGACATCGTGGCCAAGCCCAACTACCTGAGCACCATGA AGAACTTTGCACTGCAGCAGCCTTCAGAGGACTGGATGATCCTGGAGTTCTCCCAGCTGGGCTTCATTGGTAAGA TGTTCAAGTCGCTGGACCTGAGCCTGATTGTAGAGTTCATTCTCATGTTCTACCGGGACAAGCCCATCGACTGGC TCCTGGACCATATTCTGTGGGTGAAAGTCTGCAACCCCGAGAAGGATGCGAAGCACTGTGACCGGCAGAAAGCCA AACTGAAGGACAAAGACTTTGGAAAGCAGGCGCTGCGGAAGGAGCATGTGAACCCGCCAGCAGAGGTGAGCACGA GCCTGAAGACATACCAGCACTTCACCCTGGAGAAAGCCTACCTGCGCGAGGACTTCTTCTGGGCCTTCACCCCTG CCGCGGGGGACTTCATCCGCTTCCGCTTCTTCCAACCTCTAAGACTGGAGCGGTTCTTCTTCCGCAGTGGGAACA AGGCCCTGCAGGAGGGCCGCACCGCCACCCTCCGGTACCCTCGGAGCCCCGACGGCTACCTCCAGATCGGCTCCT TCTACAAGGGAGTGGCAGAGGTGGACCCAGCCTTCGGCCCTCTGGAAGCACTGCGCCTCTCGATCCAGA CGGACTCCCCTGTGTGGGTGATTCTGAGCGAGATCTTCCTGAAAAAGGCCGAC<u>TAA</u>GCTGCGGGCTTCTGAGGGT ACCCTGTGGCCAGCCCTGAAGCCCACATTTCTGGGGGTGTCGTCACTGCCGTCCCCGGAGGGCCAGATACGGCCC GGTGCTGCCCCGCCCGCCGGGCCGCGAGGAGGCGGCCGCCCCACACTGTGCCTGAGGCCCGGAACCGTTCG CACCCGGCCTGCCCCAGTCAGGCCGTTTTAGAAGAGCTTTTACTTGGGCGCCCCGCCGTCTCTGGCGCGAACACTG GAATGCATATACTACTTTATGTGCTGTTTTTTTATTCTTGGATACATTTGATTTTTTCACGTAAGTCCACATAT ACTTCTATAAGAGCGTGACTTGTAATAAAGGGTTAATGAAG

MSRVAGTRTDVNELLQRWTPRCVRWHTGGARRVALDRPLVTACLPPAGDVVDVYQREFLALRDRLHAAEQESLKR SKELNLVLDEIKRAVSERQALRDGDGNRTWGRLTEDPRLKPWNGSHRHVLHLPTVFHHLPHLLAKESSLQPAVRV GQGRTGVSVVMGIPSVRREVHSYLTDTLHSLISELSPQEKEDSVIVVLIAETDSQYTSAVTENIKALFPTEIHSG LLEVISPSPHFYPDFSRLRESFGDPKERVRWRTKQNLDYCFLMMYAQSKGIYYVQLEDDIVAKPNYLSTMKNFAL QQPSEDWMILEFSQLGFIGKMFKSLDLSLIVEFILMFYRDKPIDWLLDHILWVKVCNPEKDAKHCDRQKANLRIR FKPSLFQHVGTHSSLAGKIQKLKDKDFGKQALRKEHVNPPAEVSTSLKTYQHFTLEKAYLREDFFWAFTPAAGDF IRFRFFQPLRLERFFFRSGNIEHPEDKLFNTSVEVLPFDNPQSDKEALQEGRTATLRYPRSPDGYLQIGSFYKGV AEGEVDPAFGPLEALRLSIQTDSPVWVILSEIFLKKAD

ATGTTGGGCACGGAAGGTGGAGAGGGATTCGTGGTGAAGGTCCGGGGCTTGCCCTGGTCTTGCTCGGCCGATGAA GTGCAGAGGTTTTTTTCTGACTGCAAAATTCAAAATGGGGCTCAAGGTATTCGTTTCATCTACACCAGAGAAGGC AGACCAAGTGGCGAGGCTTTTGTTGAACTTGAATCAGAAGATGAAGTCAAATTGGCCCTGAAAAAAAGACAGAGAA ACTATGGGACACAGATATGTTGAAGTATTCAAGTCAAACAACGTTGAAATGGATTGGGTGTTGAAGCATACTGGT CCAAATAGTCCTGACACGGCCAATGATGGCTTTGTACGGCTTAGAGGACTTCCCTTTGGATGTAGCAAGGAAGAA ATTGTTCAGTTCTTCTCAGGGTTGGAAATCGTGCCAAATGGGATAACATTGCCGGTGGACTTCCAGGGGAGGAGT ACGGGGGAGGCCTTCGTGCAGTTTGCTTCACAGGAAATAGCTGAAAAGGCTCTAAAGAAACACAAGGAAAGAATA GGGCACAGGTATATTGAAATCTTTAAGAGCAGTAGAGCTGAAGTTAGAACTCATTATGATCCACCACGAAAGCTT ATGGCCATGCAGCGCCAGGTCCTTATGACAGACCTGGGGCTGGTAGAGGGTATAACAGCATTGGCAGAGGAGCT GGCTTTGAGAGGATGAGGCGTGGTGCTTATGGTGGAGGCTATGAGGCTATGATGATTACAATGGCTATAATGAT GGCTATGGATTTGGGTCAGATAGATTTGGAAGAGACCTCAATTACTGTTTTTCAGGAATGTCTGATCACAGATAC GGGGATGGTGGCTCTACTTTCCAGAGCACAACAGGACACTGTGTACACATGCGGGGATTACCTTACAGAGCTACT GAGAATGACATTTATAATTTTTTTTCACCGCTCAACCCTGTGAGAGTACACATTGAAATTGGTCCTGATGGCAGA GTAACTGGTGAAGCAGATGTCGAGTTCGCAACTCATGAAGATGCTGTGGCAGCTATGTCAAAAGACAAAGCAAAT ATGCAACACAGATATGTAGAACTCTTCTTGAATTCTACAGCAGGAGCAAGCGGTGGTGCTTACGAACACAGATAT GTAGAACTCTTCTTGAATTCTACAGCAGGAGCAAGCGGTGGTGCTTATGGTAGCCAAATGATGGGAGGCATGGGC ACCAAGGAGCAGTGAACAGCAGCTACTACAGTAGTGGAAGCCGTGCATCTATGGGCGTGAACGGAATGGGAGGGT TTTTTTTTTTTTTTTTTTTTAAGAAAACTTCAGTTTAACAGTTTCTGCAATACAAGCTTGTGATTTATGCTT ACTCTAAGTGGAAATCAGGATTGTTATGAAGACTTAAGGCCCAGTATTTTTGAATACAATACTCATCTAGGATGT AAGCAGTAAGCGTATTTAGGTAAAAGCAGTTGAATTATGTTAAATGTTGCCCTTTGCCACGTTAAATTGAACACT GTGAAACATTTTGGCATGTTTGTTAATTCTAGTTTCATTTAATAACCTGTAAGGCACGTAAGTTTAAGCTTTTTT TTTTTTTAAGTTAATGGGAAAAATTTGAGACGCAATACCAATACTTAGGATTTTGGTCTTGGTGTTTGTATGAAA TTCTGAGGCCTTGATTTAAATCTTTCATTGTATTGTGATTTCCTTTTAGGTATATTGCGCTAAGTGAAACTTGTC AAATAAATCCTCCTTTTAAAAACTGC

MMLGTEGGEGFVVKVRGLPWSCSADEVQRFFSDCKIQNGAQGIRFIYTREGRPSGEAFVELESEDEVKLALKKDR ETMGHRYVEVFKSNNVEMDWVLKHTGPNSPDTANDGFVRLRGLPFGCSKEEIVQFFSGLEIVPNGITLPVDFQGR STGEAFVQFASQEIAEKALKKHKERIGHRYIEIFKSSRAEVRTHYDPPRKLMAMQRPGPYDRPGAGRGYNSIGRG AGFERMRRGAYGGGYGGYDDYNGYNDGYGFGSDRFGRDLNYCFSGMSDHRYGDGGSTFQSTTGHCVHMRGLPYRA TENDIYNFFSPLNPVRVHIEIGPDGRVTGEADVEFATHEDAVAAMSKDKANMQHRYVELFLNSTAGASGGAYEHR YVELFLNSTAGASGGAYGSQMMGGMGLSNQSSYGGPASQQLSGGYGGGYGGQSSMSGYDQVLQENSSDFQSNIA

MTEQMTLRGTLKGHNGWVTQIATTPQFPDMILSASRDKTIIMWKLTRDETNYGIPQRALRGHSHFVSDVVISSDG QFALSGSWDGTLRLWDLTTGTTTRRFVGHTKDVLSVAFSSDNRQIVSGSRDKTIKLWNTLGVCKYTVQDESHSEW VSCVRFSPNSSNPIIVSCGWDKLVKVWNLANCKLKTNHIGHTGYLNTVTVSPDGSLCASGGKDGQAMLWDLNEGK HLYTLDGGDIINALCFSPNRYWLCAATGPSIKIWDLEGKIIVDELKQEVISTSSKAEPPQCTSLAWSADGQTLFA GYTDNLVRVWQVTIGTR

GCGGAGCCCACGGAGCCCACGGAGGAGCCCACGGAGGAGCCCCAGCGTCCGAACGGGCAGACCCCCTCGAGCCGC GAAGGAGCCCGAGAAGCAGCCACGATGTGCGGAATCTTTGCCTACATGAACTACAGAGTCCCCCGGACGAGGAAG GAGATCTTCGAAACCCTCATCAAGGGCCTGCAGCGGCTGGAGTACAGAGGCTACGACTCGGCAGGTGTGGCGATC GATGGGAATAATCACGAAGTCAAAGAAAGACACATTCAGCTGGTCAAGAAAAGGGGGGAAAGTCAAGGCTCTCGAT GAAGAACTTTACAAACAAGACAGCATGGACTTAAAAGTGGAGTTTGAGACACTTCGGCATTGCCCACACGCGC TGGGCCACCCACGGGGTCCCCAGTGCTGTCAACAGCCACCCTCAGCGCTCAGACAAAGGCAACGAATTTGTTGTC ATCCACAATGGGATCATCACAAATTACAAAGATCTGAGGAAATTTCTGGAAAGCCAAAGGCTACGAGTTTGAGTCA GAAACAGATACAGAGACCATCGCCAAGCTGATTAAATATGTGTTCGACAACAGAGAAACTGAGGACATTACGTTT TCAACGTTGGTCGAGAGAGTCATTCAGCAGTTGGAAGGTGCATTCGCGCTGGTTTTCAAGAGTGTCCACTACCCA GGAGAAGCCGTTGCCACACGGAGAGGCAGCCCCCTGCTCATCGGAGTCCGGAGCAAATACAAGCTCTCCACAGAA CAGATCCCTATCTTATACAGGACGTGCACTCTGGAGAATGTGAAGAATATCTGTAAGACACGGATGAAGAGGCTG GACAGCTCCGCCTGCCTGCATGCTGTGGGCGACAAGGCCGTGGAATTCTTCTTTGCTTCTGATGCAAGCGCTATC ATAGAGCACACCAACCGGGTCATCTTCCTGGAGGACGATGACATCGCCGCAGTGGCTGATGGGAAACTCTCCATT CACCGGGTCAAGCGCTCGGCCAGTGATGACCCATCTCGAGCCATCCAGACCTTGCAGATGGAACTGCAGCAAATC ATGAAAGGTAACTTCAGTGCGTTTATGCAGAAGGAGATCTTCGAACAGCCAGAATCAGTTTTCAATACTATGAGA GGTCGGGTGAATTTTGAAACCAACACGTGCTCCTGGGTGGCTTGAAGGACCACTTGAAGGAGATTCGACGATGC CGACGGCTCATCGTGATTGGCTGTGGAACCAGCTACCACGCTGCCGTGGCTACGCGGCAAGTTTTGGAGGAACTG ACTGAGCTTCCTGTGATGGTTGAACTTGCTAGTGATTTTCTGGACAGGAACACACCTGTGTTCAGGGATGACGTT TGCTTTTTCATCAGCCAGTCAGGCGAGACCGCGGACACCCTCCTGGCGCTGCGCTACTGTAAGGACCGCGGCGCT CTCACCGTGGGCGTCACCAACACGTGGGCAGCTCCATCTCTCGCGAGACCGACTGCGGCGTCCACATCAACGCA ATGTCTGAAGACCGAATTTCACTACAAAACAGGAGGCAAGAGATCATCCGTGGCTTGAGATCTTTACCTGAGCTG ATCAAGGAAGTGCTGTCTCTGGAGGAGAAGATCCACGACTTGGCCCTGGAGCTCTACACGCAGAGATCGCTGCTG GTGATGGGGCGGGGCTACAACTATGCCACCTGCCTGGAAGGAGCCCTGAAAATTAAAGAGATAACCTACATGCAC TCAGAAGGCATCCTGGCTGGGGAGCTGAAGCACGGGCCCCTGGCACTGATTGACAAGCAGATGCCCGTCATCATG GTCATTATGAAGGATCCTTGCTTCGCCAAATGCCAGAACGCCCTGCAGCAAGTCACGGCCCGCCAGGGTCGCCCC ATTATACTGTGCTCCAAGGACGATACTGAAAGTTCCAAGTTTGCGTATAAGACAATTGAGCTGCCCCACACTGTG GACTGCCTCCAGGGCATCCTGAGCGTGATTCCGCTGCAGCTGTCCTTCCACCTGGCTGTTCTCCGAGGATAT GACGTTGACTTCCCCAGAAATCTGGCCAAGTCTGTAACTGTGGAATGAGGCTGAGACCGTGACAAGACCATCACC ACCTTTCATCTGATTCCAGACCTGTCCCAACAGCAGGGATGCTACATGGGAAGAGAGTGGACATCCCACATGTT CTGCGTGCTCCTGTAGAGCTTGACAGCTTCCACGTGCCTTCTACCCAAGTGCTTTTGCTTACAGCAGATACTGTT TCTCTGTGTCCTGAAGTCGCCAGAGGAGAAGGGAATCATTGTTTACACATGGGGATCAGAGCAGACTTCTCCACT AGACAAGATATTTATAATGACGACTGTATAGCTTTTAAGTTATTTTTCTAGTATGTGGCTTTCTGTAGCCGTGGT AACGGCCAAACTGTTCATCCTAGCTACCCATGCTCTGTGTCCAGGCTTGCTCCTGGCAGGTGGCATTCATCTCAG TCTCTGACATCCGTGGAGCCCCTCCTGCATCCACCTATGCCTCCTATAAGTCCAGCTTGAAATCTCAGCCTCCTTC AACATTTTCTTCTCGTGTGTGGCCCACATCCCTCCACTTCTCCAACTTCTGTTTAATCTGATCACGGCTCTTTTT AAGCCCTGGCAGCATTTTGGTCCCTGCTCCTTGCCCATAGTAAAACAGCTTGAAATATCCCATGCAAGAGAGTAG TTTCAAGTGGGCGACTCTGCTCTCTATTTAAAAGCGTGCACAATCAAAAGTACTATGCAATTTTAGGACAATAAA GAACATACAGTTCC

MCGIFAYMNYRVPRTRKEIFETLIKGLQRLEYRGYDSAGVAIDGNNHEVKERHIQLVKKRGKVKALDEELYKQDS
MDLKVEFETHFGIAHTRWATHGVPSAVNSHPQRSDKGNEFVVIHNGIITNYKDLRKFLESKGYEFESETDTETIA
KLIKYVFDNRETEDITFSTLVERVIQQLEGAFALVFKSVHYPGEAVATRGSPLLIGVRSKYKLSTEQIPILYRT
CTLENVKNICKTRMKRLDSSACLHAVGDKAVEFFFASDASAIIEHTNRVIFLEDDDIAAVADGKLSIHRVKRSAS
DDPSRAIQTLQMELQQIMKGNFSAFMQKEIFEQPESVFNTMRGRVNFETNTVLLGGLKDHLKEIRRCRRLIVIGC
GTSYHAAVATRQVLEELTELPVMVELASDFLDRNTPVFRDDVCFFISQSGETADTLLALRYCKDRGALTVGVTNT
VGSSISRETDCGVHINAGPEIGVASTKAYTSQFISLVMFGLMMSEDRISLQNRRQEIIRGLRSLPELIKEVLSLE
EKIHDLALELYTQRSLLVMGRGYNYATCLEGALKIKEITYMHSEGILAGELKHGPLALIDKQMPVIMVIMKDPCF
AKCQNALQQVTARQGRPIILCSKDDTESSKFAYKTIELPHTVDCLQGILSVIPLQLLSFHLAVLRGYDVDFPRNL
AKSVTVE

ATGGCCCCCACAGTGTGGAGAGTGGACGGACAGACAGAAGCAGTGTGTGCAGCCTTGCCTCTCATCAGAGTCACT
GGGAGCAGGATTTCCTTTGACCTCGCTGAGTACACTGCGGACGTTGACGGAGTTGGCACTCTACGACTTCTAGAT
GCAGTTAAGACTTGTGGCCTTATCAACTCTGTGAAGTTCTACCAAGCCTCAACAAGTGAACTTTATGGGAAAGTG
CAGGAAATACCCCAGAAGGAGACCACCCCTTTCTATCCCCGGTCACCCTATGGTGAGAACATGCGTGCACACCGG
AGCACATGTGTGGCGTTATCTGTGGGTGTGGGGGGGCAGCAAAACTCTATGCCTATTGGATTGTGGTGAACTTC
CGTGAGGCGTATAATCTCTTTGCAGTGAACGGCATTCTCTTCAATCATGAGAGTCCCAGAAGAGGAGATCAGTTG
AAGATTTCCGTCTTTCGATGA

# FIGURE 1859A

CCGACCAACACCAACACCCAGCTCCGACGCAGCTCCTCTGCGCCCTTGCCGCCCTCCGAGCCACAGCTTTCCTCC TCGCGAGCCTTCCGCACTCCCGGCCGGTTCCCCGGCCGTCCGCCTATCCTTGGCCCCCTCCGCTTTCTCCGCGCC GGCCCGCCTCGCTTATGCCTCGGCGCTGAGCCGCTCTCCCGATTGCCCGCCGACATGAGCTGCAACGGAGGCTCC CACCCGCGGATCAACACTCTGGGCCGCATGATCCGCGCCGAGTCTGGCCCGGACCTGCGCTACGAGGTGACCAGC GGCGGCGGGGGCACCAGCAGGATGTACTATTCTCGGCGCGCGTGATCACCGACCAGAACTCGGACGGCTACTGT CAAACCGGCACGATGTCCAGGCACCAGAACCAGAACACCATCCAGGAGCTGCTGCAGAACTGCTCCGACTGCTTG ATGCGAGCAGAGCTCATCGTGCAGCCTGAATTGAAGTATGGAGATGGAATACAACTGACTCGGAGTCGAGAATTG GATGAGTGTTTTGCCCAGGCCAATGACCAAATGGAAATCCTCGACAGCTTGATCAGAGAGATGCGGCAGATGGGC CAGCCCTGTGATGCTTACCAGAAAAGGCTTCTTCAGCTCCAAGAGCAAATGCGAGCCCTTTATAAAGCCATCAGT GTCCCTCGAGTCCGCAGGGCCAGCTCCAAGGGTGGTGGAGGCTACACTTGTCAGAGTGGCTCGGCTGGGATGAG TTCACCAAACATGTCACCAGTGAATGTTTGGGGTGGATGAGGCAGCAAAGGGCGGAGATGGACATGGTGGCCTGG GGTGTGGACCTGGCCTCAGTGGAGCAGCACATTAACAGCCACCGGGGCATCCACAACTCCATCGGCGACTATCGC TGGCAGCTGGACAAAATCAAAGCCGACCTGCGCGAGAAATCTGCGATCTACCAGTTGGAGGAGGAGTATGAAAAC CTGCTGAAAGCGTCCTTTGAGAGGATGGATCACCTGCGACAGCTGCAGAACATCATTCAGGCCACGTCCAGGGAG ATCATGTGGATCAATGACTGCGAGGAGGAGGAGCTGCTGTACGACTGGAGCGACAAGAACACCAACATCGCTCAG  ${\tt AAACAGGAGGCCTTCTCCATACGCATGAGTCAACTGGAAGTTAAAGAAAAAGAGCTCAATAAGCTGAAACAAGAA}$ AGTGACCAACTTGTCCTCAATCAGCATCCAGCTTCAGACAAAATTGAGGCCTATATGGACACTCTGCAGACGCAG AAGAGGCGCAGTCTACTGAAGCATACCTGAAGGGGCTCCAGGACTCCATCAGGAAGAAGTACCCCTGCGACAAGA GTCAGGTGCAGAACTTGGTAAACAAGTCTAAGAAGATTGTACAGCTGAAGCCTCGTAACCCAGACTACAGAAGCA TCCTGAAGGACAACAACGAGCGCAGCAAGTGGTACGTGACGGGCCCGGGAGGCGTTGACATGCTTGTTCCCTCTG TGGGGCTGATCATCCCTCCGCAACCCACTGGCCGTGGACCTCTCTTGCAAGATTGAGCAGTACTACGAAGCCA TCTTGGCTCTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTCCTGGCACTACTGCATGATTGACATAG AGAAGATCAGGGCCATGACAATCGCCAAGCTGAAAACAATGCGGCAGGAAGATTACATGAAGACGATAGCCGACC TTGAGTTACATTACCAAGAGTTCATCAGAAATAGCCAAGGCTCAGAGATGTTTGGAGATGATGACAAGCGGAAAA TACAGTCTCAGTTCACCGATGCCCAGAAGCATTACCAGACCCTGGTCATTCAGCTCCCTGGCTATCCCCAGCACC AGACAGTGACCACAACTGAAATCACTCATCATGGAACCTGCCAAGATGTCAACCATAATAAAGTAATTGAAACCA AGGGCAGGATGACTCTCAAAAACCTCCCTCTAGCAGACCAGGGATCTTCTCACCACATCACAGTGAAAATTAACG AGCTTAAGAGTGTGCAGAATGATTCACAAGCAATTGCTGAGGTTCTCAACCAGCTTAAAGATATGCTTGCCAACT TCAGAGGTTCTGAAAAGTACTGCTATTTACAGAATGAAGTATTTGGACTATTTCAGAAACTGGAAAATATCAATG GTGTTACAGATGGCTACTTAAATAGCTTATGCACAGTAAGGGCACTGCTCCAGGCTATTCTCCAAACAGAAGACA TGTTAAAGGTTTATGAAGCCAGGCTCACTGAGGAGGAAACTGTCTGCCTGGACCTGGATAAAGTGGAAGCTTACC GCTGTGGACTGAAGAAAATAAAAATGACTTGAACTTGAAGAAGTCGTTGTTGGCCACTATGAAGAACAACTAC AGAAAGCCCAGCAGATCCACTCTCAGACTTCACAGCAGTATCCACTTTATGATCTGGACTTGGGCAAGTTCGGTG AACAAATCAAGCAATTGAGGAATTATCGTGATAACTATCAGGCTTTCTGCAAGTGGCTCTATGATGCTAAACGCC GCCAGGATTCCTTAGAATCCATGAAATTTGGAGATTCCAACACAGTCATGCGGTTTTTGAATGAGCAGAAGAACT TGCACAGTGAAATATCTGGCAAACGAGACAAATCAGAGGAAGTACAAAAAATTGCTGAACTTTGCGCCAATTCAA TTAAGGATTATGAGCTCCAGCTGGCCTCATACACCTCAGGACTGGAAACTCTGCTGAACATACCTATCAAGAGGA CCATGATTCAGTCCCCTTCTGGGGTGATTCTGCAAGAGGCTGCAGATGTTCATGCTCGGTACATTGAACTACTTA CAAGATCTGGAGACTATTACAGGTTCTTAAGTGAGATGCTGAAGAGTTTGGAAGATCTGAAGCTGAAAAATACCA AGATCGAAGTTTTGGAAGAGGAGCTCAGACTGGCCCGAGATGCCAACTCGGAAAACTGTAATAAGAACAAATTCC TGGATCAGAACCTGCAGAAATACCAGGCAGAGTGTTCCCAGTTCAAAGCGAAGCTTGCGAGCCTGGAGGAGCTGA AGAGACAGGCTGAGCTGGATGGGAAGTCGGCTAAGCAAAATCTAGACAAGTGCTACGGCCAAATAAAAGAACTCA

#### 2021/6881 FIGURE 1859B

ATGAGAAGATCACCCGACTGACTTATGAGATTGAAGATGAAAAGAGAAGAAAATCTGTGGAAGACAGATTTG TAGAGTCTGAGAAAGCCATCAAGGAGAAGGAGTACGAGATTGAAAGGTTGAGGGTTCTACTGCAGGAAGAAGGCA CCCGGAAGAGAATATGAAAATGAGCTGGCAAAGGTAAGAAACCACTATAATGAGGAGATGAGTAATTTAAGGA ACAAGTATGAAACAGAGATTAACATTACGAAGACCACCATCAAGGAGATATCCATGCAAAAAAGAGGATGATTCCA AAAATCTTAGAAACCAGCTTGATAGACTTTCAAGGGAAAATCGAGATCTGAAGGATGAAATTGTCAGGCTCAATG ACAGCATCTTGCAGGCCACTGAGCAGCGAAGGCGAGCTGAAGAAAACGCCCTTCAGCAAAAAGGCCTGTGGCTCTG AGATAATGCAGAAGAAGCAGCATCTGGAGATAGAACTGAAGCAGGTCATGCAGCAGCGCTCTGAGGACAATGCCC GGCACAAGCAGTCCCTGGAGGAGGCTGCCAAGACCATTCAGGACAAAAATAAGGAGATCGAGAGACTCAAAGCTG AGTTTCAGGAGGAGGCCAAGCGCCGCTGGGAATATGAAAATGAACTGAGTAAGGTAAGAAACAATTATGATGAGG AGATCATTAGCTTAAAAAATCAGTTTGAGACCGAGATCAACATCACCAAGACCACCATCCACCAGCTCACCATGC AGAAGGAAGAGGATACCAGTGGCTACCGGGCTCAGATAGACAATCTCACCCGAGAAAACAGGAGCTTATCTGAAG AAATAAAGAGGCTGAAGAACACTCTAACCCAGACCACAGAGAATCTCAGGAGGGTGGAAGAAGACATCCAACAGC AAAAGGCCACTGGCTCTGAGGTGTCTCAGAGGAAACAGCAGCTGGAGGTTGAGCTGAGACAAGTCACTCAGATGC GAACAGAGGAGAGCGTAAGATATAAGCAATCTCTTGATGATGCTGCCAAAACCATCCAGGATAAAAACAAGGAGA TAGAAAGGTTAAAACAACTGATCGACAAAGAAACAAATGACCGGAAATGCCTGGAAGATGAAAACGCGAGATTAC AAGAACTGACACGCCTGAGGATCGACTATGAAAGGGTTTCCCAGGAGAGGACTGTGAAGGACCAGGATATCACGC GGTTCCAGAACTCTCTGAAAGAGCTGCAGCTGCAGAAGCAGAAGGTGGAAGAGGAGCTGAATCGGCTGAAGAGGA CCGCGTCAGAAGACTCCTGCAAGAGGAAGAAGCTGGAGGAAGAGCTGGAAGGCATGAGGAGGTCGCTGAAGGAGC AAGCCATCAAAATCACCAACCTGACCCAGCAGCTGGAGCAGGCATCCATTGTTAAGAAGAGGAGTGAGGATGACC TCCGGCAGCAGAGGGACGTGCTGGATGGCCACCTGAGGGAAAAGCAGAGGACCCAGGAAGAGCTGAGGAGGCTCT CTTCTGAGGTCGAGGCCCTGAGGCGGCAGTTACTCCAGGAACAGGAAAGTGTCAAACAAGCTCACTTGAGGAATG AGCATTTCCAGAAGGCGATAGAAGATAAAAGCAGAAGCTTAAATGAAAGCAAAATAGAAATTGAGAGGCTGCAGT CTCTCACAGAGAACCTGACCAAGGAGCACTTGATGTTAGAAGAAGAACTGCGGAACCTGAGGCTGGAGTACGATG ACCTGAGGAGAGGACGAAGCGAAGCGGACAGTGATAAAAATGCAACCATCTTGGAACTAAGGAGCCAGCTGCAGA AAATTGAGAAATTCCAAAAGCAGGCTTTAGAGGCATCTAATAGGATTCAGGAATCAAAGAATCAGTGTACTCAGG TGGTACAGGAAAGAGAGACCTTCTGGTGAAAATCAAAGTCCTGGAGCAAGACAAGGCAAGGCTGCAGAGGCTGG AGGATGAGCTGAATCGTGCAAAATCAACTCTAGAGGCAGAAACCAGGGTGAAACAGCGCCTGGAGTGTGAGAAAC AGCAAATTCAGAATGACCTGAATCAGTGGAAGACTCAATATTCCCGCAAGGAGGAGGCTATTAGGAAGATAGAAT CGGAAAGAGAAAAGAGTGAGAGAGAAGAACAGTCTTAGGAGTGAGATCGAAAGACTCCAAGCAGAGATCAAGA GAATTGAAGAGGGGCGCAGGCGTAAGCTGGAGGATTCTACCAGGGAGACACAGTCACAGTTAGAAACAGAACGCT CCCGATATCAGAGGGAGATTGATAAACTCAGACAGCGCCCCATATGGGTCCCATCGAGAGACCCAGACTGAGTGTG AGTGGACCGTTGACACCTCCAAGCTGGTGTTTGATGGGCTGAGGAAGAAGGTGACAGCAATGCAGCTCTATGAGT GTCAGCTGATCGACAAAACAACCTTGGACAAACTATTGAAGGGGAAGAAGTCAGTGGAAGAAGTTGCTTCTGAAA TCCAGCCATTCCTTCGGGGTGCAGGATCTATCGCTGGAGCATCTGCTTCTCCTAAGGAAAAATACTCTTTGGTAG AGGCCAAGAGAAAGAAATTAATCAGCCCAGAATCCACAGTCATGCTTCTGGAGGCCCAGGCAGCTACAGGTGGTA TAATTGATCCCCATCGGAATGAGAAGCTGACTGTCGACAGTGCCATAGCTCGGGACCTCATTGACTTCGATGACC GTCAGCAGATATATGCAGCAGAAAAAGCTATCACTGGTTTTGATGATCCATTTTCAGGCAAGACAGTATCTGTTT CAGAAGCCATCAAGAAAATTTGATTGATAGAGAAACCGGAATGCGCCTGCTGGAAGCCCAGATTGCTTCAGGGG TGTATCGATCCCTGAATGATCCCCGAGATAGTCAGAAAAACTTTGTGGATCCAGTCACCAAAAAAGAAGGTCAGTT ACGTGCAGCTGAAGGAACGGTGCAGAATCGAACCACATACTGGTCTGCTCTTGCTTTCAGTACAGAAGAAGCA TGTCCTTCCAAGGAATCAGACAACCTGTGACCGTCACTGAGCTAGTAGATTCTGGTATATTGAGACCGTCCACTG TCAATGAACTGGAATCTGGTCAGATTTCTTATGACGAGGTTGGTGAGAGAATTAAGGACTTCCTCCAGGGTTCAA GCTGCATAGCAGGCATATACAATGAGACCACAAAACAGAAGCTTGGCATTTATGAGGCCATGAAAATTGGCTTAG TCCGACCTGGTACTGCTCTGGAGTTGCTGGAAGCCCAAGCAGCTACTGGCTTTATAGTGGATCCTGTTAGCAACT

## 2022/6881 FIGURE 1859C

TGAGGTTACCAGTGGAGGAAGCCTACAAGAGAGGTCTGGTGGGCATTGAGTTCAAAGAGAAGCTCCTGTCTGCÁG AACGAGCTGTCACTGGGTATAATGATCCTGAAACAGGAAACATCATCTCTTTGTTCCAAGCCATGAATAAGGAAC TCATCGAAAAGGGCCACGGTATTCGCTTATTAGAAGCACAGATCGCAACCGGGGGGATCATTGACCCAAAGGAGA GCCATCGTTTACCAGTTGACATAGCATATAAGAGGGGCTATTTCAATGAGGAACTCAGTGAGATTCTCTCAGATC AGAATACCCTCAGGAAGCGTAGAGTGGTCATAGTTGACCCAGAAACCAATAAAGAAATGTCTGTTCAGGAGGCCT ACAAGAAGGGCCTAATTGATTATGAAACCTTCAAAGAACTGTGTGAGCAGGAATGTGAATGGGAAGAAATAACCA GCAGCTCCCGACATGAATCAGTAAGTAAGATTTCCACCATATCCAGCGTCAGGAATTTAACCATAAGGAGCAGCT CTTTTTCAGACACCCTGGAAGAATCGAGCCCCATTGCAGCCATCTTTGACACAGAAAACCTGGAGAAAATCTCCA TTACAGAAGGTATAGAGCGGGGCATCGTTGACAGCATCACGGGTCAGAGGCTTCTGGAGGCTCAGGCCTGCACAG GTGGCATCATCCACCCAACCACGGGCCAGAAGCTGTCACTTCAGGACGCAGTCTCCCAGGGTGTGATTGACCAAG  ${\tt ACATGGCCACCAGGCTGAAGCCTTCATAGGCTTCGAGGGTGTGAAGGGAAAGAAGAAGATGT}$ CAGCAGCAGGGCAGTGAAAGAAAATGGCTCCCGTATGAGGCTGGCCAGCGCTTCCTGGAGTTCCAGTACCTCA GCCGCGCCCCCAAAACCAAAATCCTGACCTGCCCCAAAACCAAATTAAAAA TATCCTATAAGGATGCCATAAATCGCTCCATGGTAGAAGATATCACTGGGCTGCGCCTTCTGGAAGCCGCCTCCG TGTCGTCCAAGGGCTTACCCAGCCCTTACAACATGTCTTCGGCTCCGGGGTCCCGCTCCGGCTCCGGGAT CTCGCTCCGGATCTCGCTCCGGGTCCCGCAGTGGGTCCCGGAGAGGGAAGCTTTGACGCCACAGGGAATTCTTCCT ACTCTTATTCCTACTCATTTAGCAGTAGTTCTATTGGGCACTAGTAGTCAGTTGGGAGTGGTTGCTATACCTTGA CTTCATTTATATGAATTTCCACTTTATTAAATAATAGAAAAGAAAATCCCGGTGCTTGCAGTAGAGTGATAGGAC ATTCTATGCTTACAGAAAATATAGCCATGATTGAAATCAAATAGTAAAGGCTGTTCTGGCTTTTTATCTTCTTAG CTCATCTTAAATAAGCAGTACACTTGGATGCAGTGCGTCTGAAGTGCTAATCAGTTGTAACAATAGCACAAATCG  ${\tt AACTTAGGATTTGTTCTTCTTCTGTGTTTCGATTTTTGATCAATTCTTTAATTTTGGAAGCCTATAATACAG}$ TTTTCTATTCTTGGAGATAAAATTAAATGGATCACTGATATTTTAGTCATTCTGCTTCTCATCTAAATATTTCC ATATTCTGTATTAGGAGAAAATTACCCTCCCAGCACCAGCCCCCCTCTCAAACCCCAACCCAAAACCAAGCATT TTGGAATGAGTCTCCTTTAGTTTCAGAGTGTGGATTGTATAACCCATATACTCTTCGATGTACTTGTTTGGTTTG GTATTAATTTGACTGTGCATGACAGCGGCAATCTTTTCTTTGGTCAAAGTTTTCTGTTTATTTTGCTTGTCATAT TCGATGTACTTTAAGGTGTCTTTATGAAGTTTGCTATTCTGGCAATAAACTTTTAGACTTTT

GTCATGTTCTTCGCGCCCTGGTGTGGACACTGCCAGCGGCTGCAGCCGACTTGGAATGACCTGGGAGACAAATAC AACAGCATGGAAGATGCCAAAGTCTATGTGGCTAAAGTGGACTGCACGGCCCACTCCGACGTGTGCTCCGCCCAG GGGGTGCGAGGATACCCCACCTTAAAGCTTTTCAAGCCAGGCCAAGAAGCTGTGAAGTACCAGGGTCCTCGGGAC TTCCAGACACTGGAAAACTGGATGCTGCAGACACTGAACGAGGAGCCAGTGACACCAGAGCCGGAAGTGGAACCG GACCACTTTATCAAGTTCTTCGCTCCGTGGTGTGGTCACTGCAAAGCCCTGGCTCCAACCTGGGAGCAGCTGGCT CTGGGCCTTGAACATTCCGAAACTGTCAAGATTGGCAAGGTTGATTGTACACAGCACTATGAACTCTGCTCCGGA AACCAGGTTCGTGGCTATCCCACTCTTCTCTGGTTCCGAGATGGGAAAAAGGTGGATCAGTACAAGGGAAAGCGG GATTTGGAGTCACTGAGGGAGTACGTGGAGTCGCAGCTGCAGCGCACAGAGACTGGAGCGACGGAGACCGTCACG TTCGATGACACCATTGCAGAAGGAATAACCTTCATCAAGTTTTATGCTCCATGGTGTGTCATTGTAAGACTCTG GCTCCTACTTGGGAGGAACTCTCTAAAAAGGAATTCCCTGGTCTGGCGGGGGTCAAGATCGCCGAAGTAGACTGC ACTGCTGAACGGAATATCTGCAGCAAGTATTCGGTACGAGGCTACCCCACGTTATTGCTTTTCCGAGGAGGGAAG AAAGTCAGTGAGCACAGTGGAGGCAGAGACCTTGACTCGTTACACCGCTTTGTCCTGAGCCAAGCGAAAGACGAA CTTTAGGAACACAGTTGGAGGTCACCTCTCCTGCCCAGCTCCCGCACCCTGCGTTTAGGAGTTCAGTCCCACAGA TTTTCCAAGCCAACACTCTACAGATTCTTTATTAAGTTAAGTTTCTCTAAGTAAATGTGTAACTCATGGTCAC TGTGTAAACATTTTCAGTGGCGATATATCCCCTTTGACCTTCTCTTGATGAAATTTACATGGTTTCCTTTGAGAC CACATCCAAAGCATAGTTTACCTGCCCACGAGTTCTGGAAAGGTGGCCTTGTGGCAGTATTGACGTTCCTCTGAT CTTAAGGTCACAGTTGACTCAATACTGTGTTGGTCCGTAGCATGGAGCAGATTGAAATGCAAAAACCCACACCTC TGGAAGATACCTTCACGGCCGCTGCTGGAGCTTCTGTTGCTGTGAATACTTCTCTCAGTGTGAGAGGTTAGCCGT GATGAAAGCAGCGTTACTTCTGACCGTGCCTGAGTAAGAGAATGCTGATGCCATAACTTTATGTGTCGATACTTG TCAAATCAGTTACTGTTCAGGGGATCCTTCTGTTTCTCACGGGGTGAAACATGTCTTTAGTTCCTCATGTTAACA CGAAGCCCAGAGCCCACATGAACTGTTGGATGTCTTCCTTAGAAAGGGTAGGCATGGAAAATTCCACGAGGCTCA TTCTCAGTATCTCATTAACTCATTGAAAGATTCCAGTTGTATTTGTCACCTGGGGTGACAAGACCAGACAGGCTT TCCCAGGCCTGGGTATCCAGGGAGGCTCTGCAGCCCTGCTGAAGGGCCCTAACTAGAGTTCTAGAGTTTCTGATT CTGTTTCTCAGTAGTCCTTTTAGAGGCTTGCTATACTTGGTCTGCTTCAAGGAGGTCGACCTTCTAATGTATGAA GAATGGGATGCATTTGATCTCAAGACCAAAGACAGATGTCAGTGGGCTGCTCTGGCCCTGGTGTGCACGGCTGTG GCAGCTGTTGATGCCAGTGTCCTCTAACTCATGCTGTCCTTGTGATTAAACACCTCTATCTCCCTTGGGAATAAG CACATACAGGCTTAAGCTCTAAGATAGATAGGTGTTTTGTCCTTTTACCATCGAGCTACTTCCCATAATAACCACT TTGCATCCAACACTCTTCACCCACCTCCCATACGCAAGGGGGATGTGGATACTTGGCCCAAAGTAACTGGTGGTAG GAATCTTAGAAACAAGACCACTTATACTGTCTGTCTGAGGCAGAAGATAACAGCAGCATCTCGACCAGCCTCTGC CTTAAAGGAAATCTTTATTAATCACGTATGGTTCACAGATAATTCTTTTTTTAAAAAAACCCAACCTCCTAGAGA AGCACAACTGTCAAGAGTCTTGTACACAACTTCAGCTTTGCATCACGAGTCTTGTATTCCAAGAAAATCAAAG 

# FIGURE 1862

ACTTCTGGGGCAGCCGTGAGCAGCGGCACACGGGCAGCCACGAAAGCAGCGAGGGTGGTGCAAACACCTCA TAACTACACCGAATCCAGTAGCGCCTGGCGCCCCCGGCGCGCAAGGCCGCCTCTACTCCGCCTCATCTTTGTCCC AAGTCCTTTCACAGCCTGCCTTCCTCAAACGGCCCGATGCGCCCCCGTCTTTGCCGGAGTAAGCAGACCGCCAGC AGCCGGCCCGCAGGTCAGTCGACCCTCTCTGGATGCAGGTCGCCGGGAAAACCCGGAGCGGAGCATCCCTCGGGC CGGGAAACGCCTCGGCGCGCACCCACTGGCGCGCATGCTCAGTCCGCGCGGCGGCTGCGAGTAGGAAGCTCCGC GGGCAGGGGCTCCCGCTCCAGGTTCCTTGAAGCACTTCCGACCGCGAAGCCCGGCGCGAGAAGCGAGCTAACCCA AGAGCCAACAACGAGCGCGGAGAGGGCAGCGGACTGAGCGGAGCCGGCCAGAGCGGGCTCGGAGCCCGGGTC GTCATGTGGAGAGCATCGACAAGCGCCACTGCTCGCTGGTCTACGTCCCCGAGGAGATCTACCGCTATGCCCGGA GCCTGGAGGAGCTGCTGGACGCCAACCAGCTCCGCGAGCTGCCCGAGCAATTTTTCCAGCTAGTCAAATTAC TAGATGTGTCTCGAAATGAGATTCCTGAAATTCCAGAAAGCATTTCATTCTGTAAAGCACTGCAGGTAGCTGACT TTCTTACATATCTTCCTGACTCTTACCCAGCTGCGAAGACTAGAAGAACTTGATTTAGGAAACAATGAAATAT  ${\tt ATAATTTGAATCAATTGGAGCCCTCTTACATC} {\tt TAA} {\tt AGATCTCTGGTTGGATGGAAATCAACTGTCAGAATTACCC}$ TCAGGAAATAGGAAATCTGAAGAACCTGCTGTGTTTAGATGTCTCTGAAAACAGGTTGGAAAGACTTCCTGAAGA AATCAGTGGCCTGACTTCATTAACGGATTTAGTCATTTCCCAGAACTTATTAGAAACGATTCCGGATGGCATTGG ANACTAAAGAAACTGTCAATCTTGAAGGTGGATCAGAATAGACTCACACAGTTGCCTGAAGCAGTTGGGGAATG TGANAGTCTCACTGAGTTAGTTCTTACAGAAAATCAGCTCCTGACCCTGCCTAAAAAGCATTGGAAAACTAAAGAA GTTGAGCAACTTGAATGCAGACAGAAATAAATTAGTGTCCTTACCAAAAGAGGTATGTGCTTTTAGAGAAATCAC ATGATAATTATGAAGAATAATAATAATAATACATAAGGGATCAAAAATGTCAAATGCTTTGAAAAGACGCATGT GTTGTTTTTTAAAGGTGTGAACTCTAAATCTGTGAGTATAGAGCCAACTGGAGGAATTATGTCAAAGAATGATCA TGGGTTTGATATACAGAGAATGGTGACACCATTGGCAGAAATTGATAATTTGGGAGTTTGACAGAGGAAGTGGAT GCCTTTGGGTTTGATTTTTGAATTTAATGTGAAATTAAGCTCCATCCCATAAGCAATTGGAATTATAAAAATTGA TCTTGATGCAACCATATTTCTGGGCAGAGATTTACATTGGGCCATGCTCATGTCTTGGATGAGGTTGAACAAACT GTAGTCTAAGCACGAGAAAATGAGACATCACCATCTGTTGTGGAGAGTAGCTGTATGGACTGAGAGGCATTTAAA TTCTGGCAAGGGAGGTGGAAATGCTGACAATGAGGAGGAAGCTTATAGTGGGTCAAACAAGGAGGTGTCTAGTGT AGGCAAGAGAATTGCCTGAACCCGGGAGGCTAAGGTTGCAGTGAGCCGAGACCACGCCACTGCACTCCAGCCCGG 

MFHCIPLWRCNRHVESIDKRHCSLVYVPEEIYRYARSLEELLLDANQLRELPEQFFQLVKLRKLGLSDNEIQRLP PEIANFMQLVELDVSRNEIPEIPESISFCKALQVADFSGNPLTRLPESFPELQNLTCLSVNDISLQSLPENIGNL YNLASLELRENLLTYLPDSLTQLRRLEELDLGNNEIYNLNQLEPSYI

## FIGURE 1865A

ATGGCTTTCCGCAGGAGGACGAAAAGTTACCCGCTCTTCAGCCAGGAGTTCGTCATCCACAACCATGCGGACATC TTACCTCAGTATAACATTAGCGTGCCTACAGCAGACAGTGAGACCGTGCACTACCACTATGGCCCTAAGGACCTG GTCACAATCTTGTTCTACATCTTCATCACCATCTTGCATGCTGTGGTTCAGGAGTACATTTTAGATAAAATC AGCAAACGGCTTCATCTCCCAAAGTCAAACACAGCAAGTTCAATGAATCTGGACAGCTGGTCGTCTTTCATTTC ACCTCGGTGATTTGGTGCTTCTACGTGGTGGTGACGGAAGGATACTTAACAAACCCAAGAAGCCTCTGGGAAGAC CCTGAGCTATACTTCCAGAAGGTACGGAAGGAGGAAATTCCCCGCCAGCTCCAGTATATTTGCCTGTACCTGGTG CATATAGCTGGAGCATACCTCTTAAACCTGAGCCGCCTGGGCCTGATCTTGCTGCTGCTGCAGTACTCAACTGAG TTCCTCTTCCACACGGCTAGACTCTTCTACTTTGCAGATGAAAACAACGAGAAACTGTTCAGTGCCTGGGCTGCT GTTTTTGGGGTTACCCGCCTCTTCATCCTCACCCTTGCCGTGCTGGCCATTGGCTTTGGACTGGCTCGCATGGAA AACCAGGCATTTGATCCCGAGAAAGGGAACTTCAACACTTTGTTTTGCAGGCTCTGCGTGCTGCTGCTGGTGTGT GCCGCCCAGGCCTGGCTCATGTGGCGCTTCATCCACTCCCAGCTGCGGCACTGGCGGGAATACTGGAATGAGCAG AATGGAGTGGTGAAGGCAGAACGGAACCTCCCCACGGACTAAGAAACTCAAGTCTCCCTAAGGCCAAAGTGCT TCTGTCTCTTGCCTTATGGCTGCTTTTTCCTTTTTACTTCCTATTTTCACCTTATCTTGCAATTTTTCTGTCT GATTTTTACAATGGGAGGGAGCTAAGATTGCAGTCCTGTCCTTCGGTCCCCAGGGCCTGCCGGTCAGAAGCCT GGGGCTGGTAGGCCCTTGGTGGTCCTCATGTGGATGGGCAAGAAGAGAGGGCCCATCTCGGATCATAATCTCCTT GGTGCTGATTAACTGACGAGATATATGATTCCAGTTCTGCATGTACCATCTTGAGGCACAGCAGCACTGCTCGT TGTAAATGCCAAGGCATTTGGCTTTGGGACGTGACAACTCAATCCAGAAGGATGGTGTGAACTCGGTTGGGTCCC CTTCCCACTGCTTAGAGCGAGAGCAGAGCAAACTGCGCAGCAGGCACCTCCAGAAAGGTAATGGTGGCAGAACCC ACAGTGGAGTCGACCTAGGCCTTTCTCCAGCAGTCCCAGTCGCCATTGCTTTTTCAGCCATTCACAAGCATTCAA AGGGGCCAAACTTACTACCTTGACTTCATCTCTAGCTGCAGAAACACTAAGTCTCAAGGGCTTCAGCCCCATGCT GGTCCCTTGGTGTTCAGGGAGGGTCACTTGGACCGCTGTTCATCTGGCCGCCCTTGTTGAGTGTTCTTTGGAATT ATGATAGGCGCCTTTCTGGCCCCTTCCCTCACAGATTCTTTCCCCTCCCCTCCACCTGAAGAGAGGCCTCCAAG TCCTTTTGGTGCCTTGTGAGGACTTTTAGAAGGGGGCGTTCAGCTTTAAAAAGCCGGTCCTAATTACGGCCGGACG  ${\tt CAGTAGCTTACGCCTGTTATCCCAGCACTTTGGGAGGTCGAGGTGGGCAGATCACCTGAGGTTAGGAGTTCAAGA}$ ATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTAGAAGGCGGAGGTTGCAGTGAGCGGAGATT CGAACTCTGTTTTGAGGCAAAGGGGAGTAGTTCTTGGTAGGTGCAGGAATAGTAGTGTCATTTGGAATACTGGTC ATCTTTCTGACATCACAGTAGAAACCAAACCTTGGATTTAGATTCAAAAGGGGGGAAATGGGTCTTTTCATCAAG GCAACTCCCCTTCTCCAAGTCACTTACATCATAGATAAATTTTAGCTTCCCAGTAACTGAGGGATTTGTTTCCTA ACGCCATTGGAGGCCTTCATCCCTCTCTACGATAAGGTTGCAGAAATGGGAAGAGCTACCCGTGGTTGCTTTTGA TTACCCTTAGGAAGTGAGACAGTGTTTTTGAAAATATGTATTTCCCCCATTTCTCCCTCTCCCTGACACTT CTCTGGGCTGCACAGCAGAAACGTTGGTAAAAGGGCAGTTTGGTTTCAACACAGCAGACCTGATATGGGATCCCT TAGCCACTTTAGTCAAACAGCCCTGACAGAGTCTATAATTGAGTTCAGGCCCCCCACCTTGCCTAATAACTGCAA ATCGCATGTTCAGCCAGCAGCCTCCTAAGCCCACCTTCCTCCCCCATTAGAGAACACCCATCCTAGGTGCTCTCC AGGCTGTGTCATTGGCAGGGCTTCACATGCAGGAGGCCTCTCTCAGGTGAGTCCAGGTTAAACTGTTGAGTTGTG GCTTCAACAGATÄTGTATGGCATGCTGGGATGTGCCAGGTGCCTGCGTTGTGCCAGTTGCTGGAGAGGTAGTGTG

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## FIGURE 1865B

AGCAGAGCAGCTGAAATCTTGCCATCAAGCAACCCTCATTCTCATGCCTGTAGGTTTCCATTGCTCTGTCCCAGG ACACTTGCGTGCCAGAGACGCCACAACTTCATGTCCCTGTCTTTGCAAGCTCCCCGTGCTGCCAGTACTTCATG CCTTGGATGTGGTCCCACCAGCCCAGTGGCCGGGGTCAGCTTAGGCTCTGCTTCCCAGTGGACGGGTGTGCTAAG CCACCCTCCCTGGCACGTTTATTTCACAGCAGAGCCAAGTCTGTGGCAGGTTGACACAGACTGTGTTGCCAGAGC TGAAATAATTCCACTTCATCCTATGAGCGTGTTGGGCTAGCTTGTTCTAATTTTGGCCACTTTGGCTGTTTTCTT CAGTTTTATGCATTCTCTCCCCCCAAAGTGCCAAGCCATTTGTGAAGGCTCTGCCAGACACCTCCAAGCTTGA GAGCTCAGCACCATGCACCAAGAGCAGGAGAAAAGACGTAAACCTACCCCAGCAACTGTGGCCTCTCGACAGCCC GGATCTGTGCTACCCGCTCCCTCGTTGGAGGTGCAGTGATGATGGGAGTTATTTTTACCATCCGGGCGCTGATA GCTGCACTATTAATAAATTGCATGTTTCCTTTTGAAGGTAGGGGATGGTTCTGGGTGAGAGGGGAGCAGGCTGA GCCGGCGGGGGATCTGCTGCTCCCTTTTGAGTCAGTTCTAATCCCATGTGTGTCTGGGCCACCAGACCGAAAT GGTTGCTGAGAAACTTGTCTGTTCATGTCCCAAGGCATAACTTCCCAACATTTAAGAAACCCCAATAGACACCTC TGCCCTGGCCACGTTCACAGATCCTTCTCTTGACCGGAAACCCTGGGACCCTAAGAACCCCTGAAGCTTGGGGTG GGTGTGTGCTTCTGGGGGTCTCTTTTGGGACCTCCTTTGTCAGTACCCCTTCTTTTTTCTAAGCAGCTAATAAGAG GTTGGGTGAAAGAGTGCATCTCCCCAGGATTCCACAACAAAATTCTTATCTTCCATGGATGCTTTAATTGGAA GTGGGTTGCCGACCCCTTGTGCCTAGAAAAGGCCTTCGCTTGGGTTTCCTTTGTATGCTTCAGCCTTCCTAGTT GGTTTTTCTAGGCCTGGTGTGAGAGGTAGGGAAGTCTGCACATAACTAATTCTTTTGCTTAAGGGCCTATGGCAC AGACAATGGAGTGCTCTTCCTCCCTCACTCTGCCTTCCGAGCTTATGGTTCCTTTTCTCAGGAGAGGATTTTCAG GATTATTGGAGGATTAGGTCATTGTCAGATGACTGGAAAACCTAAATAGGATCTCTCCCAGCTCAAGGTTGTCC CAGTGAGGAAGACTTTACCAACTTCTCACTCTACCCCACTACTCACATGAGTGTTAGCTCCACCTTGCAAAGGCT GAAGACCAGTTCTCCCCAGTGAAAGCTGCCTCATTCTTTATGGAGTTCCCTGGAGTGGCAGAGCTATAAAGACG AGCATTGGGATTTGCAGTCTCCATGTAGCCTTTCGTGCTTGGCAACCCCTGTAGACTTTTTGTCCCAAGCAGATT GCGTGCGTGCGCCTGTGTGTGAGAATAAGTGCCTTACTTTGCTGTGTGTTTTCAACTTGTACTCCGTGGCCAGC GGTTTCTCCCTTGTGTCAGTTCTCTTCTGGCCCAGCTGGGTGGCTGTGGAAGTCTGTGAGGTGGCCCAACCACAA GCATACCTATTAAGAGAAGCCCAGAGCTTCCAGCCCCCACTTCGAAAACTCTCCTCTGGCCCCACATAGCAAACT CCTTCTCCGTTATTTTCCCCACCCCCAGATTTTTTTTAAAAGGCCCACTTGCCGTAACCTCTTTTGGTCTATTTT GCTTCCCATTCAGCCCAAAGTTTATATGATAAAGGTGTTTACTTTTACTTCCCAGTCTCCAAGTGCTAACACATA AACACATACATGTCTGACTGTTGCAGAACTGTTCGAGCTCCTAATTCAGTGTTACCTTGTTTTAGTCGCAGCAAC CCTTTCCACAGCCTTTCTGTCCCTTAAAACACCTGCAACTGGGGGGAGAAATGGGACCCATGGGAGGGGGAGTCGT TTTTAGAACATGTAGCATCATCTTAGAGGTCTATTTTTAAAAAATGTGTTGAAGAGGAAAAAACCATTCTCACGA TGGGGCTTAAGTCATTGTCCAGGAATAAGATTGGCGTGGTGCCCATGACATCACCGTCACTCTGCCTAAAAGCAC TCTAGAGCTACTTGTTCACGTGGAGAGGAAGGATATTTTGCGAAGCAACAGCCGCAGGTGGAGAGCCCTGTTCAC CTGATAGGGTCTAGCTGTGACAGTAAATATAATACCGCTGTTTCCTTGGGTACAGATTTGAGTGTTCATGTGATG AGACTGTAAACCTCATTTTTCGGTTCCTCTGTTTAAAAAAACATCTGAAGGATGAACTAAGGCTGCTGGTGCCCT GAGCAACTGATAATGCAAATGTGGACAAAGTGTCTGTTTTCTACTCTAGCCTGTTCATATGGACCAAATTTCAAC AAGGAACTCAAGGAAAATTTGTACCTGCCGTATTTATGCTTTCATGTAAAAAAGGGTTGGGGGGAGGGGTGTCTT GTATGGATTTTTTAAATGTACATTTTGGAACAAATGATCAAATATTTTCTGAAATAACAATAAAAGGCAGAAAAT

 ${\tt AGCTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGAGGAAGACCAGGGAATTTATCAGAGCAAAG}$ TTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTGTCAATGTGAATGACCTGCGCAGGAAAAACGAGAAGA GGGCTAACCGGCTTCTGAACAATGCCTTTGAGGAGCTGGTTGCCTTCCAGCGGGCCTTAAAGGATTTTGTGGCCT  $\verb|CCATTGATGCTACCTATGCCAAGCAGTATGAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACG|\\$ TCTCCCCGCGGACTCTTACCTCCTGCTTCCTCAGCTGTGTGGTGTGTGGAGGGCATTGTCACTAAATGTTCTC  ${\tt TAGTTCGTCCCAAAGTCGTCCGCAGTGTCCACTACTGTCCTGCTACTAAGAAGACCATAGAGCGACGTTATTCTG}$ ATCTCACCACCCTGGTGGCCTTTCCCTCCAGCTCTGTCTATCCTACCAAGGATGAGGAGAACAATCCCCTTGAGA  ${\tt CAGAATATGGCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGCCCCAGCCG}$ GCCAGCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAAGCGAAGCCTGGTGACCGGGTTC AGGTGGTGGGAACCTACCGTTGCCTTCCTGGAAAGAAGGGGGGCTACACCTCTGGGACCTTCAGGACTGTCCTGA TTGCCTGTAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTCTGCTGAGGATATAGCCAAGATCAAGA AGTTCAGTAAAACCCGATCCAAGGATATCTTTGACCAGCTGGCCAAGTCATTGGCCCCAAGTATCCATGGGCATG ACTATGTCAAGAAAGCAATCCTCTGCTTGCTCTTGGGAGGGGTGGAACGAGACCTAGAAAATGGCAGCCACATCC GTGGGGACATCAATATTCTTCTAATAGGAGACCCATCCGTTGCCAAGTCTCAGCTTCTGCGGTATGTGCTTTGCA CTGCACCCCGAGCTATCCCCACCACTGGCCGGGGCTCCTCTGGAGTGGGTCTGACGGCTGCTGTCACCACAGACC AGGAAACAGGAGGGCCCGTCTGGAAGCAGGGGCCATGGTCCTGGCTGACCGAGGCGTGGTTTGCATTGATGAATTTGACAAAATGTCTGACATGGATCGCACAGCCATCCATGAAGTGATGGAGCAGGGTCGAGTGACCATTGCCAAGG AGTATAAGACTCCAATGGAGAACATTGGGCTACAGGACTCACTGCTGTCACGATTTGACTTGCTCTTCATCATGC TGGATCAGATGGATCCTGAGCAGGATCGGGAGATCTCAGACCATGTCCTTCGGATGCACCGTTACAGAGCACCTG GGGAGCAGGATGCCATGCCCTTGGGTAGTGCTGTGGATATCCTGGCCACAGATGATCCCAACTTTAGCC AGGAAGATCAGCAGGACACCCAGATTTATGAGAAGCATGACAACCTTCTACATGGGACCAAGAAGAAAAAGGAGA AGATGGTGAGTGCAGCATTCATGAAGAAGTACATCCATGTGGCCAAAATCATCAAGCCTGTCCTGACACAGGAGT  $\tt CGGCCACCTACATTGCAGAAGAGTATTCACGCCTGCGCAGCCAGGATAGCATGAGCTCAGACACCGCCAGGACAT$ CTCCAGTTACAGCCCGAACACTGGAAACTCTGATTCGACTGGCCACAGCCCATGCGAAGGCCCGCATGAGCAAGA  $\tt CTGTGGACCTGCAGGATGCAGAGGAAGCTGTGGAGTTGGTCCAGTATGCTTACTTTAAGAAGGTTCTGGAGAAGG$ AGAAGAAACGTAAGAAGCGAAGTGAGGATGAATCAGAGACAGAAGATGAAGAGGAGAAAAGCCAAGAGGACCAGG AGCAGAAGAGAAGAAGAAGAAGACTCGCCAGCCAGATGCCAAAGATGGGGGATTCATACGACCCCTATGACTTCA GTGACACAGAGGAGAATGCCTCAAGTACACACTCCAAAGACGCAGACTCACAGGAGACCAAGGAATCCCAGA AAGTGGAGTTGAGTGAATCCAGGTTGAAGGCATTCAAGGTGGCCCTCTTGGATGTGTTCCGGGAAGCTCATGCGC AGTCAATCGGCATGAATCGCCTCACAGAATCCATCAACCGGGACAGCGAAGAGCCCTTCTCTTCAGTTGAGATCC AGGCTGCTCTGAGCAAGATGCAGGATGACAATCAGGTCATGGTGTCTGAGGGCATCATCTTCCTCATC<u>TGA</u>GGAG GCCTCGTCTCTGAACTTGGGTTGTGCCGAGAGAGTTTGTTCTGTGTTTTCCCACCCTCTCCCTGACCCAAGTCTTT GCCTCTACTCCCTTAACAGTGTTGAATTCAACTGAAGGCGAGGAATGTTGGTGATGAAGCTGAGTTCAGGACTCG GTGGACCCTTTGGGAATGGGTCATGAAAGCTGCCATGGGGTGAGGAAAGAGGAGACAGTGGGAGAGGACAATGAC TATTGCATCTTCATTGCAAAAGCACTGGCTCATCCGCCCTACTTCCCATCCCACACAAACCCAATTGTAAATAAC AGCACTTTGGTCTAGACTAGGCTTTGGGTGGTTCCAATTGGTGGAGAAGCTCTGAGGCACGTCATGCAGGTCA AATATCCGAGATGTTGAATAAACTTAGCCATTTCGTACAAAAAAAGGGGGGCCCGGTAAAC

MAGTVVLDDVELREAQRDYLDFLDDEEDQGIYQSKVRELISDNQYRLIVNVNDLRRKNEKRANRLLNNAFEELVA FQRALKDFVASIDATYAKQYEEFYVGLEGSFGSKHVSPRTLTSCFLSCVVCVEGIVTKCSLVRPKVVRSVHYCPA TKKTIERRYSDLTTLVAFPSSSVYPTKDEENNPLETEYGLSVYKDHQTITIQEMPEKAPAGQLPRSVDVILDDDL VDKAKPGDRVQVVGTYRCLPGKKGGYTSGTFRTVLIACNVKQMSKDAQPSFSAEDIAKIKKFSKTRSKDIFDQLA KSLAPSIHGHDYVKKAILCLLLGGVERDLENGSHIRGDINILLIGDPSVAKSQLLRYVLCTAPRAIPTTGRGSSG VGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSDMDRTAIHEVMEQGRVTIAKAGIHARLNARCSVLA AANPVYGRYDQYKTPMENIGLQDSLLSRFDLLFIMLDQMDFEQDREISDHVLRMHRYRAPGEQDGDAMPLGSAVD ILATDDPNFSQEDQDTQIYEKHDNLLHGTKKKKEKMVSAAFMKKYIHVAKIIKPVLTQESATYIAEEYSRLRSQ DSMSSDTARTSPVTARTLETLIRLATAHAKARMSKTVDLQDAEEAVELVQYAYFKKVLEKEKKRKKRSEDESETE DEEEKSQEDQEQKRKRRKTRQPDAKDGDSYDPYDFSDTEEEMPQVHTPKTADSQETKESQKVELSESRLKAFKVA LLDVFREAHAQSIGMNRLTESINRDSEEPFSSVEIQAALSKMQDDNQVMVSEGIIFLI

ATGACTGCATCCAACTCGCAGGTGCGCCAGAACTACCACCAGGACTCAGAGGCCGCCATCAACCGCCAGATCAAC
CTGGAGCTCTACGCCTCCTACTTTAACCTCTCCATGTCTTACTACTTTGACCGTGATGATGCGGCTTTGAAGAAC
TTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAGCATGCTGAGAAACTGATGAAACTGCAGAACCAA
CAAGAGTGTGCATTACATTTGGAAAAAAATGTGAATCAGTCACTACTGGAACTGCACAAACTGGCCACTGACAAA
AATGACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGAATTGGGTGAACGTGACCAACTTG
CACAAGATGGGAGCACCCGAATCTGGCTTGGCAGAATATCTCTTTGACAAGCACACCCTGGGAGAAAGAGGGAGC
ACTGGAATGTTTAATTCGGACAATGCCAATACAAGTTTACAGAGAAGAGAGAACCTTCCATTGGGTTTTGAAGGT
TCTGCTGATTTTCAATGGGCAGAGGTGGAGGAACAGTCTGAGCAGAGAACATCATAAACAAAGGAGTGAATGT
GAGAAAGGCTTCAAGTCCCATCAGAGTACTGGCTTCACTTTGACTGTAGAACATTTAGTTGAAGCAGTATTCAAA
AGTGTAGAACTTGTCAAGCTACCTATCCAGTCCTCTTGTCTTCTGAAACAGTGGTTACCTGCTCTGGAAAACCTT
CTCTCTCCATCCTCCAAAAGCTCCTGGGGTACAGCTTTTATCAGCGCACCTATCACACTGATTCTGGTCTCCAAAAA
CTCTTTCTTGCTGAAAACAGCATACAAAATACTTTCCCTCTTCAAAGCCCAATACAACACTGGAAGAACCATGGAG
AAGAAAGTACTCAGTATCTTTTCCCCCACTAAAAGTTGTTCCAAGGCATCCAAAAACCACTGGAGGAGCCCTAGGT
TTATCAAAAAGTATCTGCCATTTCTAAAAGAATGTGTTTCCAAGGCATCCAGAAAGACCCTTTCCAACTGAACCA

MTASNSQVRQNYHQDSEAAINRQINLELYASYFNLSMSYYFDRDDAALKNFAKYFLHQSHEEREHAEKLMKLQNQ QECALHLEKNVNQSLLELHKLATDKNDPHLCDFIETHYLNEQNWVNVTNLHKMGAPESGLAEYLFDKHTLGERGS TGMFNSDNANTSLQRRENFPLGFEGSADFQWAEVEEQSEQREHHKQRSECEKGFRSHQSTGFTLTVEDLVEAVFK SVELVKLPIQSSCLLKQWLPALENLLSPSSKAPGVQLYQRTYHTDSGLQKLFLLKTAYKILSLFKAQYNTGKAME KKVLSIFSPLKVVLQCLNTTGGALGLSKVSAISKRMCFQGIQKELFPTAPNSICFPHPVPTRGAAEAQSQPDA

CGGACGCGTGGGCCGGTTCAGCCATGGGGACCTCTCCGAGCAGCACCACCGCCCTCGCCTCCTGCAGCCGCATCG CCCGCCGAGCCACGCCACGATGATCGCGGGCTCCCTTCTCCTGCTTGGATTCCTTAGCACCACCACACCTCAGC CAGAACAGAAGGCCTCGAATCTCATTGGCACATACCGCCATGTTGACCGTGCCACCGGCCAGGTGCTAACCTGTG ACAAGTGTCCAGCAGGAACCTATGTCTCTGAGCATTGTACCAACACAAGCCTGCGCGTCTGCAGCAGTTGCCCTG TGGGGACCTTTACCAGGCATGAGAATGGCATAGAGAAATGCCATGACTGTAGTCAGCCATGCCCATGGCCAATGA TTGAGAAATTACCTTGTGCTGCCTTGACTGACCGAGAATGCACTTGCCCACCTGGCATGTTCCAGTCTAACGCTA CCTGTGCCCCCATACGGTGTGCCTGTGGGTTGGGGTGTGCGGAAGAAAGGGACAGAGACTGAGGATGTGCGGT GTAAGCAGTGTGCTCGGGGTACCTTCTCAGATGTGCCTTCTAGTGTGATGAAATGCAAAGCATACACAGACTGTC TGAGTCAGAACCTGGTGGTGATCAAGCCGGGGACCAAGGAGACAACGTCTGTGGCACACTCCCGTCCTTCT CCAGCTCCACCTCCCCTGGCACAGCCATCTTTCCACGCCCTGAGCACATGGAAACCCATGAAGTCCCTT CCTCCACTTATGTTCCCAAAGGCATGAACTCAACAGAATCCAACTCTTCTGCCTCTGTTAGACCAAAGGTACTGA CAAACCTTCAGGTAGTCAACCACCAGCAAGGCCCCCACCACAGACACATCCTGAAGCTGCTGCCGTCCATGGAGG CCACTGGGGGCGAGAAGTCCAGCACGCCCATCAAGGGCCCCAAGAGGGGACATCCTAGACAGAACCTACACAAGC ATTTTGACATCAATGAGCATTTGCCCTGGATGATTGTGCTTTTCCTGCTGCTGCTGTTGTGGTGATTGTGGTGT GCAGTATCCGGAAAAGCTCGAGGACTCTGAAAAAGGGGCCCCGGCAGGATCCCAGTGCCATTGTGGAAAAGGCAG GGCTGAAGAAATCCATGACTCCAACCCAGAACCGGGAGAAATGGATCTACTACTGCAATGGCCATGGTATCGATA GGGAGGTTGCTGCTTTCTCCAATGGGTACACAGCCGACCACGAGCGGGCCTACGCAGCTCTGCAGCACTGGACCA TCCGGGGCCCCGAGCCAGCCTCGCCCAGCTAATTAGCGCCCTGCGCCAGCACCGGAGAAACGATGTTGTGGAGA AGATTCGTGGGCTGATGGAAGACCACCCAGCTGGAAACTGACAAACTAGCTCTCCCGATGAGCCCCAGCCCGC TTAGCCCGAGCCCCATCCCCAGCCCCAACGCGAAACTTGAGAATTCCGCTCTCCTGACGGTGGAGCCTTCCCCAC AGGACAAGAACAAGGGCTTCTTCGTGGATGAGTCGGAGCCCCTTCTCCGCTGTGACTCTACATCCAGCGGCTCCT CCGCGCTGAGCAGGAACGGTTCCTTTATTACCAAAGAAAAGAAGGACACAGTGTTGCGGCAGGTACGCCTGGACC CCTGTGACTTGCAGCCTATCTTTGATGACATGCTCCACTTTCTAAATCCTGAGGAGCTGCGGGTGATTGAAGAGA TCCTGGACTCTGTTTATAGCCATCTTCCTGACCTGCTGTAGAACATAGGGATACTGCATTCTGGAAATTACTCAA TGTGTGTGTGTGTGTGTGTGTGTTTTAACAGAGAATATGGCCAGTGCTTGAGTTCTTTTCTCCTTCTCTCT CTCTCTTTTTTTTTAAATAACTCTTCTGGGAAGTTGGTTTATAAGCCTTTGCCAGGTGTAACTGTTGTGAAATA CCCACCACTAAAGTTTTTTAAGTTCCATATTTTCTCCATTTTGCCTTCTTATGTATTTTCAAGATTATTCTGTGC ACTTTAAATTTACTTAACTTACCATAAATGCAGTGTGACTTTTCCCACACACTGGATTGTGAGGCTCTTAACTTC TTAAAAGTATAATGGCATCTTGTGAATCCTATAAGCAGTCTTTATGTCTCTTAACATTCACACCTACTTTTTAAA AACAAATATTATTACTATTTTTATTATTGTCCTTTATAAATTTTCTTAAAGATTAAGAAAATTTAAGACCC CATTGAGTTACTGTAATGCAATTCAACTTTGAGTTATCTTTTAAATATGTCTTGTATAGTTCATATTCATGGCTG AAACTTGACCACACTATTGCTGATTGTATGGTTTTCACCTGGACACCGTGTAGAATGCTTGATTACTTGTACTCT TCTTATGCTAATATGCTCTGGGCTGGAGAAATGAAATCCTCAAGCCATCAGGATTTGCTATTTAAGTGGCTTGAC AACTGGGCCACCAAAGAACTTGAACTTCACCTTTTAGGATTTGAGCTGTTCTGGAACACATTGCTGCACTTTGGA AAGTCAAAATCAAGTGCCAGTGGCGCCCTTTCCATAGAGAATTTGCCCAGCTTTGCTTTAAAAGATGTCTTGTTT TTTATATACACATAATCAATAGGTCCAATCTGCTCTCAAGGCCTTGGTCCTGGTGGGATTCCTTCACCAATTACT TTAATTAAAAATGGCTGCAACTGTAAGAACCCTTGTCTGATATATTTTGCAACTATGCTCCCATTTACAAATGTAC CTTCTAATGCTCAGTTGCCAGGTTCCAATGCAAAGGTGGCGTGGACTCCCTTTGTGTGGGGTGGGGTTTGTGGGTA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MGTSPSSSTALASCSRIARRATATMIAGSLLLLGFLSTTTAQPEQKASNLIGTYRHVDRATGQVLTCDKCPAGTY VSEHCTNTSLRVCSSCPVGTFTRHENGIEKCHDCSQPCPWPMIEKLPCAALTDRECTCPPGMFQSNATCAPHTVC PVGWGVRKKGTETEDVRCKQCARGTFSDVPSSVMKCKAYTDCLSQNLVVIKPGTKETDNVCGTLPSFSSSTSPSP GTAIFPRPEHMETHEVPSSTYVPKGMNSTESNSSASVRPKVLSSIQEGTVPDNTSSARGKEDVNKTLPNLQVVNH QQGPHHRHILKLLPSMEATGGEKSSTPIKGPKRGHPRQNLHKHFDINEHLPWMIVLFLLLVLVVIVVCSIRKSSR TLKKGPRQDPSAIVEKAGLKKSMTPTQNREKWIYYCNGHGIDILKLVAAQVGSQWKDIYQFLCNASEREVAAFSN GYTADHERAYAALQHWTIRGPEASLAQLISALRQHRRNDVVEKIRGLMEDTTQLETDKLALPMSPSPLSPSPIPS PNAKLENSALLTVEPSPQDKNKGFFVDESEPLLRCDSTSSGSSALSRNGSFITKEKKDTVLRQVRLDPCDLQPIF DDMLHFLNPEELRVIEEIPQAEDKLDRLFEIIGVKSQEASQTLLDSVYSHLPDLL

 $\tt CCGGGGACTCGCATTCCCCGGTTCCCCCTCACCCCACGCGGCCTGGACCATGGACGCCAGATGGTGGGCAGTGG$ TGGTGCTGCTTCCCTCCCTAGGGGCAGGTGGGGAGACTCCCGAAGCCCCTCCGGAGTCATGGACCCAGC TATGGTTCTTCCGATTTGTGGTGAATGCTGCTGGCTATGCCAGCTTTATGGTACCTGGCTACCTCCTGGTGCAGT ACTTCAGGCGGAAGAACTACCTGGAGACCGGTAGGGGCCTCTGCTTTCCCCTGGTGAAAGCTTGTGTTTTGGCA ATGAGCCCAAGGCCTCTGATGAGGTTCCCCTGGCGCCCCGAACAGAGGCGGCAGAGACCACCCCGATGTGGCAGG CCCTGAAGCTGCTCTTCTGTGCCACAGGGCTCCAGGTGTCTTATCTGACTTGGGGTGTGCTGCAGGAAAGAGTGA TGACCCGCAGCTATGGGGCCACAGCCACATCACCGGGTGAGCGCTTTACGGACTCGCAGTTCCTGGTGCTAATGA ACCGAGTGCTGGCACTGATTGTGGCTGGCCTCTCCTGTGTTCTCTGCAAGCAGCCCCGGCATGGGGCACCCATGT ACCGGTACTCCTTTGCCAGCCTGTCCAATGTGCTTAGCAGCTGGTGCCAATACGAAGCTCTTAAGTTCGTCAGCT GCTACGAACACTGGGAGTACCTGACAGCCACCTCATCTCCATTGGGGTCAGCATGTTTCTGCTATCCAGCGGAC  ${\tt CAGAGCCCCGCAGCCACCACCACCACTCTCAGGCCTCATCTTACTGGCAGGTTATATTGCTTTTGACAGCT}$ TCACCTCAAACTGGCAGGATGCCCTGTTTGCCTATAAGATGTCATCGGTGCAGATGATGTTTGGGGTCAATTTCT TCTCCTGCCTCTTCACAGTGGGCTCACTGCTAGAACAGGGGGCCCTACTGGAGGGAACCCGCTTCATGGGGCGAC ACAGTGAGTTTGCTGCCCATGCCCTGCTACTCTCCATCTGCTCCGCATGTGGCCAGCTCTTCATCTTTTACACCA  $\tt TTGGGCAGTTTGGGGCTGCCGTCTTCACCATCATGACCCTCCGCCAGGCCTTTGCCATCCTTCTTTCCTGCC$ TTCTCTATGGCCACACTGTCACTGTGGTGGGAGGGCTGGGGGTGGCTGTGGTCTTTGCTGCCCTCCTGCTCAGAG GGTGGAAAGGGCCTGAGGGGTGAAGTGAAATAGGACCCTCCCACCATCCCCTTCTGCTGTAACCTCTGAGGGAGC TGGCTGAAAGGGCAAAATGCAGGTGTTTTCTCAGTATCACAGACCAGCTCTGCAGCAGGGGATTGGGGAGCCCAG GAGGCAGCCTTCCCTTTTGCCTTAAGTCACCCATCTTCCAGTAAGCAGTTTATTCTGAGCCCCGGGGGTAGACAG TCCTCAGTGAGGGGTTTTGGGGAGTTTGGGGTCAAGAGAGCATAGGTTACGTTACTCTTCCCACAAGTTC CTGGTGAGAAAAGCACAAGCGGTGTAGGCTCCAATGCTGCTTTCCCAGGAGGGTGAAGATGGTGCTGTGCTGAGG AAAGGGGATGCAGAGCCCTGCCCAGCACCACCTCCTATGCTCCTGGATCCCTAGGCTCTGTTCCATGAGCCT 

## FIGURE 1873

MDARWWAVVVLAAFPSLGAGGETPEAPPESWTQLWFFRFVVNAAGYASFMVPGYLLVQYFRRKNYLETGRGLCFP LVKACVFGNEPKASDEVPLAPRTEAAETTPMWQALKLLFCATGLQVSYLTWGVLQERVMTRSYGATATSPGERFT DSQFLVLMNRVLALIVAGLSCVLCKQPRHGAPMYRYSFASLSNVLSSWCQYEALKFVSFPTQVLAKASKVIPVML MGKLVSRRSYEHWEYLTATLISIGVSMFLLSSGPEPRSSPATTLSGLILLAGYIAFDSFTSNWQDALFAYKMSSV QMMFGVNFFSCLFTVGSLLEQGALLEGTRFMGRHSEFAAHALLLSICSACGQLFIFYTIGQFGAAVFTIIMTLRQ AFAILLSCLLYGHTVTVVGGLGVAVVFAALLLRVYARGRLKQRGKKAVPVESPVQKV

CTCCGGCGCAGTGTTGGGACTGTCTGGGTATCGGAAAGCCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT CTTTTCAAGATGCCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT TCTGATGCCTTGGACAAGATTCGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA ATTGACATCATCCCCAACCCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTCATGGAGGCTCTTCAGGCTGGTGCAGAC ATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACGAGAG CCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAACTAAGAAGATC AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCCTGATGACATCACC CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCT GTAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGACCTTTTTGAGAACAAG AAGAAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG AGCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAAC CGCCGCCGCCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTCAGAGTAT GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA GCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG GAGGAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATGAAAAGAAATCTTAGAT AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTGACCAGCACCTACGGC TGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATGGGCTATATGATGGCC AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT GATAAGGCAGTTAAGGACCTGGTGGTGCTGCTGTTTGAAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA GAGGAACCCAATGCTGCAGTTCCTGATGAGATCCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA GTCGAT**TAG**GTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC TCGAGTGCCCCTGTCCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTCCCTCTCCTGTCCTTGTGTTGAA GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGT ΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MPEEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLDSGKELKIDI
IPNPQERTLTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN
DDEQYAWESSAGGSFTVRADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI
SDDEAEEEKGEKEEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEKYIDQEELNKTKPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLN
FIRGVVDSEDLPLNISREMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRR
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANSAFVERVRKRGFEVVYMTEPIDEYCVQQL
KEFDGKSLVSVTKEGLELPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVVLLFETALLSSGFSLEDPQT
HSNRIYRMIKLGLGIDEDEVAAEEPNAAVPDEIPPLEGDEDASRMEEVD

GGGCTGCGCTCTCCAGCTGTGGCTATGGCCCCAGCCCCGAGATGAGGAGGAGAAACTAGGGGCCCGCAGGCCT GCCAGGGAAAACCGAGAACACCATCACCATGACAACCAGTCACCAGCCTCAGGACAGATACAAAGCTGTCTGGCT TATCTTCTTCATGCTGGGTCTGGGAACGCTGCTCCCGTGGAATTTTTTCATGACGGCCACTCAGTATTTCACAAA CCGCCTGGACATGTCCCAGAATGTGTCCTTGGTCACTGCTGAACTGAGCAAGGACGCCCAGGCGTCAGCCGCCCC TGCAGCACCCTTGCCTGAGCGGAACTCTCTCAGTGCCATCTTCAACAATGTCATGACCCTATGTGCCATGCTGCC CCTGCTGTTATTCACCTACCTCAACTCCTTCCTGCATCAGAGGATCCCCCAGTCCGTACGGATCCTGGGCAGCCT GGTGGCCATCCTGCTGGTGTTTCTGATCACTGCCATCCTGGTGAAGGTGCAGCTGGATGCTCTGCCCTTCTTTGT CCTTCTGCCTGCCAGCTACACGGCCCCCATCATGAGTGGCCAGGGCCTAGCAGGCTTCTTTGCCTCCGTGGCCAT GATCTGCGCTATTGCCAGTGGCTCGGAGCTATCAGAAAGTGCCTTCGGCTACTTTATCACAGCCTGTGCTGTTAT CATTTTGACCATCATCTGTTACCTGGGCCTGCCCCGCCTGGAATTCTACCGCTACTACCAGCAGCTCAAGCTTGA AGGACCCGGGGAGCAGGAGACCAAGTTGGACCTCATTAGCAAAGGAGAGGAGCCAAGAGCAGGCAAAGAGGAATC TGGAGTTTCAGTCTCCAACTCTCAGCCCACCAATGAAAGCCACTCTATCAAAGCCATCCTGAAAAATATCTCAGT CCTGGCTTTCTCTGTCTGCTTCATCTTCACTATCACCATTGGGATGTTTCCAGCCGTGACTGTTGAGGTCAAGTC CAGCATCGCAGGCAGCAGCACCTGGGAACGTTACTTCATTCCTGTGTCCTGTTTCTTGACTTTCAATATCTTTGA GGCCCGGCTGGTTTTGTGCCACTGCTGCTGCTGTGCAACATTAAGCCCCGCCGCTACCTGACTGTGGTCTTCGA GCACGATGCCTGGTTCATCTTCATGGCTGCCTTTGCCTTCTCCAACGGCTACCTCGCCAGCCTCTGCATGTG CTTCGGGCCCAAGAAGTGAAGCCAGCTGAGGCAGAGCCGCAGGAGCCATCATGGCCTTCTTCCTGTGTCTGGG TCTGGCACTGGGGGCTGTTTTCTCCTTCCTGTTCCGGGCAATTGTGTGACAAAGGATGGACAGAAGGACTGCCTG  $\tt CCTCCCTGCCTGCCCTCCTTCCTTCTGCCAGGGGTGATCCTGAGTGGTCTGGCGGTTTTTTCTTCT$ AACTGACTTCTGCTTTCCACGGCGTGTGCTGGGCCCGGATCTCCAGGCCCTGGGGAGGCAGCCTCTGGACGACA GTGGGGACATTGTGGGTTTGGGGCTCAGAGTCGAGGGACGGGTGTAGCCTCGGCATTTGCTTGAGTTTCTCCAC TATGTGTCTGTGTGTCTGCGTCCTGTCAGACTGTCTGCCTGTCCTGGGGTGGCTAGGAGCTGGGTCTGAC CGTTGTATGGTTTGACCTGATATACTCCATTCTCCCCTGCGCCTCCTCTGTGTTCTCCCATGTCCCCCTCC  ${\tt CAACTCCCCATGCCCAGTTCTTACCCATCATGCACCCTGTACAGTTGCCACGTTACTGCCTTTTTTAAAAATATA}$ 

TACCCCTTCATGCTCCAGTGCACCCCAGGCTTCGTGGCCAGCCTGGGAAACTGTCTCTACCCTGGTCTCCCTTCA GATCAGCTTCTAGAAATGTTTCGTGGCTACAGTGGCAGCACTGTTTTTTCCATGATGCAAGCAGTTTGCCCTCTT GGGCGGGGTTATCAGTGGCTGGCAGGGCTGGCACAGCGTGTCCGCCCACTGCCACCTGTGGGTTCCAGGAGGGCC CAGCCCCTGTGCTGATGCCCACCACCTTCTCAGCTCATGTCTGGGGAAGAGGACTGGCAGGGGGAAAGGTGCCTC CTCCTGAAAGGTGCCTCCTCTGTTTTTGCCTAATATAGGCTTGGGAACACTTTGATGTCAGCTAATTCTGACTCC TTTACTTACTAGCTGTGCGGCCTTGGGGCAACTTACTTAGCCTCTTTGAGCCTCCTGTTCCCCATCTGTAAAATG GAATCTCAATAGTGTCTAATAGTACCATGTGGAGAAACTTGTGTGAAATGATAGCTGTGGACTACTGTACACAGT ACTCAGGATGTAGTAAGTGCTCAATAAACAGCTGTTGGTATGGTTGACGTTATGGTAGTGGTTGTGGGGAGGACG TAGGAAACTGGAGACTAGCTTGGCAAAGCTGGCTCTTCCTCCTTTTAGGGAAAGCTTAGAGCATCCCCATGGGGT GATCAGATGTGGCAGGCCATGTCCCTTGGAACTTGAGTACATCGTGTGATCTCTGGAATGAAAACAGGCCTTCAC TTGCCTGATTCGGAAGCTCCAAAGAGTGGCATTACAGAGCTGGGTGGAGAGAGGGGCTAGCCATCTTTTGTGTCG TCCAATCGAGACCCTGGTGGACATCTTCCAGGAGTACCCTGATGAGATCGAGTACATCTTCAAGCCATCCTGTGT GCCCCTGATGCGATGCGGGGGCTGCTGCAATGACGAGGGCCTGGAGTGTGTGCCCACTGAGGAGTCCAACATCAC TGGTTGCCCATGGGCTCAGGAGGGGACAGATGGATGCCTGTGTCAGGAGCCCCTCTCTCCCTCTTGGAGAGAG TCCTGAGTGCCCCCCTTCTTGGGGGGCTTTGTTTGGGAAGCTGGATGAGCCTGGTCCATGGAGAGTTTAAAAAGT GGTTGCTTTCGGGTATCTACTAGGAGTCAGGGTGAAGCCTAGAGAGGATGAAAGAAGGAGGGGAGGGGATGGGGAGTG GTAAGAACCTAGGATTTGAATTCCCAGCCTGGCCAACCCTTGCAGCCATGTCTTGGCCTCAAGTGGAACAAGGGC TCCTTGAGGCCAGCAGGGTTGGGGAGTTGGGGTGGGCCTGAGCCTCTTTCCTGCTAGAGCTCTTGGTCCTCCCT GCCTCCACCACCCATCCCTGCTCTGCAGAACCCCTGGGTGCTGAGTGGCAGGAGCCCCAGGGTTGTCCCATCTGG GTATGGCTGGCTGGGTCACTAACCTCTGTGATCTGCTTCCTTTCCAGATTATGCGGATCAAACCTCACCAA GGCCAGCACATAGGAGAGATGAGCTTCCTACAGCACAACAAATGTGAATGCAGGTGAGGATGTAGTCACGGATTC  $\tt CTTCCCGCTATGTGACCTTTGGCATTTTACTTCAATGTGCCTCAGTTTCTACATCTGTAAAATGGGCACAATAGT$ AGTATACTTCATAGCATTGTTATAATGATTAAACAAGTTATATATGAAAAGATTAAAACAGTGTTGCTCCAT

MAALKALVSGCGRLLRGLLAGPAATSWSRLPARGFREVVETQEGKTTIIEGRITATPKESPNPPNPSGQCPICRW NLKHKYNYDDVLLLSQFIRPHGGMLPRKITGLCQEEHRKIEECVKMAHRAGLLPNHRPRLPEGVVPKSKPQLNRY LTRWAPGSVKPIYKKGPRWNRVRMPVGSPLLRDNVCYSRTPWKLYH

## FIGURE 1882A

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AGCTGTCGTGCCTCGTGGTCCCGGGACTGCAGTGGTGTGCGCTCTCGGCGCGCTGGCGCTAGGCATGGCGATGGAT CAAGTAAACGCGCTGTGCGAGCAGCTGGTGAAAGCGGTGACGGTCATGATGGACCCCAACTCCACCCAGCGCTAC CGGCTGGAAGCCCTCAAGTTTTGTGAGGAGTTTAAAGAAAAGTGTCCTATCTGTGTCCCCTGTGGCTTGAGGTTG GCTGAGAAAACACAAGTTGCCATCGTCAGACATTTTGGCCTTCAGATCCTGGAACACGTTGTCAAGTTTCGGTGG AACGGCATGTCTCGATTGGAGAAGGTGTATCTGAAGAACAGTGTCATGGAGCTGATTGCAAATGGAACATTGAAC ATTTTGGAAGAGGAGAACCATATTAAAGATGCTCTGTCTCGAATTGTAGTGGAAATGATCAAGCGAGAGTGGCCA TTTATCCTTTTGCGACTGCAGAGGATGTAGTGACTTTTCAGACACTTCCCCCTCAAAGAAGAAGAGGGACATCCAG CAAACATTAACCCAGAACATGGAAAGGATCTTCAGTTTTCTGCTTAACACACTTCAAGAAAATGTAAACAAGTAT ACTCTAGCAGGCTATATTGACTGGGTGTCTATGAGTCACATCACTGCTGAAAACTGTAAACTCCTGGAGATACTG TGTTTGCTGTTGAATGAACAGGAACTTCAGTTGGGAGCCGCTGAGTGTCTTCTCATTGCAGTCAGCAGAAAAGGC AAGTTGGAAGACCGGAAGCCCTTGATGGTCTTATTTGGAGATGTTGCCATGCATTATATACTCTCCGCCGCACAG ACTGCTGATGGAGGAGGTTTGGTAGAAAAACACTACGTCTTTCTGAAGAGGCTCTGTCAGGTGTTGTGTGCGCTG GGCAATCAGCTGTGCATTGCTGGGTGCAGATTCTGATGTAGAAACACCATCAAACTTTGGAAAATACCTGGAA TCTTTCTTGCTTTCACAACCCATCCAAGTCAGTTTCTACGCTCTTCAACTCAGATGACTTGGGGAGCCCTCTTC AGGCATGAAATCCTGTCCCGTGATCCTTTGCTATTAGCAATAATACCAAAATATCTTCGTGCTTCCATGACTAAC TTGGTCAAGATGGGCTTTCCTTCTAAAACAGACAGCCCTAGCTGTGAATATTCTCGGTTTGATTTTGATAGCGAT GAGGACTTCAATGCTTTCTTCAACTCCTCCCGAGCACAACAAGGAGAGGTGATGAGGTTGGCATGTCGTTTGGAT CCCAAAACTAGCTTCCAGATGGCTGGGGAGTGGCTAAAGTATCAACTATCAACTTTTCTTGATGCTGGTTCTGTG AATTCTTGTTCTGCAGTTGGAACTGGAGAAGGAAGCCTCTGTTCCGTCTTCTCACCTTCATTCGTGCAGTGGGAA GCCATGACTCTTTTTTTGGAAAGTGTTATCACCCAGATGTTTCGAACACTAAATAGAGAAGAAATTCCTGTTAAT GATGGAATAGAGCTATTGCAGATGGTTCTGAACTTTGATACCAAGGATCCCCTCATCCTGTCCTGCGTCCTTACT AATGTCTCTGCACTCTTTCCATTTGTCACCTACAGACCAGAGTTCCTGCCCCAGGTCTTCTCTAAGCTATTTTCA TCTGTCACTTTTGAAACTGTTGAAGAAGTAAGGCCCCCAGAACCCGGGCAGTGAGGAATGTGAGGAGGCATGCT TGTTCCTCCATCATCAAGATGTGTCGTGACTACCCCCAGCTTGTGCCCCAATTTTGACATGCTTTATAACCAT GTGAAGCAACTCCTCTCCAATGAGCTACTCCTGACACAAATGGAGAAGTGTGCCCTCATGGAAGCCCTGGTTCTC ATTAGCAACCAATTTAAGAACTACGAGCGTCAGAAGGTGTTCCTAGAGGAGCTGATGGCCACCAGTGGCCAGCATC TGGCTTTCTCAAGACATGCACAGAGTGCTGTCAGATGTTGATGCTTTCATTGCGTATGTGGGTACAGATCAGAAG AGCTGTGACCCAGGCCTGGAGGATCCGTGTGGCTTAAACCGTGCACGAATGAGCTTTTGTGTATACAGCATTCTG GGTGTGGTGAAACGAACTTGCTGGCCCACTGACCTAGAAGAGGCCAAAGCTGGGGGATTTGTGGTGGGTTATACA ATAAGAACCCACAATACATTATATGCACCAGAAATGCTAGCCAAAATGGCAGAGCCTTTCACCAAGGCTCTGGAT ATGCTTGACGCGGAAAAATCTGCTATATTAGGATTACCTCAACCTCTCTTGGAACTCAATGACTCTCTGTCTTC AAAACCGTCTTGGAAAGAATGCAGCGTTTCTTCTCTACCCTCTATGAAAACTGTTTTCATATCCTAGGGAAGGCA GGCCCTTCCATGCAGCAAGACTTCTATACTGTGGAGGACCTTGCTACCCAGCTTCTCAGCTCAGCCTTTGTCAAC TTGAACAATATTCCTGACTACCGACTCAGACCCATGCTTCATGTCTTTGTAAAGCCTCTGGTGCTCTTCTGTCCC AAATGGCAAGTTATCAACCAAAGGAGCCTGCTGTGTGGAGAAGATGAGGCTGCAGATGAAAACCCAGAGTCTCAA GAGATGCTGGAGGAGCAACTGGTGAGGATGTTAACCCGAGAAGTCATGGACCTAATCACGGTTTGCTGTTTTCA AAGAAGGGTGCTGACCACAGTAGTGCTCCCCCAGCAGATGAGACGATGAAGAAATGATGGCCACAGAGGTCACC CCCTCAGCTATGGCAGAGCTTACAGACCTGGGCAAATGTCTGATGAAGCATGAGGATGTTTGTACAGCGCTATTA ATTACAGCCTTCAATTCCCTGGCCTGGAAAGATACTCTGTCCTGCCAGAGGACAACCTCACAGCTCTGCTGGCCT CTCCTCAAACAAGTGCTGTCAGGGACACTGCTCGCAGATGCAGTTACGTGGCTTTTCACCAGTGTGCTGAAAGGC TTACAGATGCACGGCACGACGGCTGCATGGCTTCCCTGGTCCATCTGGCCTTCCAGATATACGAGGCACTG CGCCCCAGGTACCTGGAGATAAGAGCTGTAATGGAGCAAATCCCTGAAATACAGAAGGACTCACTGGACCAGTTT GACTGCAAGCTTTTAAACCCCTCCCTGCAGAAAGTGGCTGACAAGCGCCGAAAGGACCAATTCAAACGCCTCATT GCTGGTTGCATTGGGAAACCCTTGGGAGAGCAGTTCCGAAAAGAAGTTCACATTAAGAATCTTCCCTCACTTTTC

## 2047/6881 FIGURE 1882B

AAAAAAACAAAGCCAATGCTGGAGACGGAGGTGCTGGACAATGATGGGGGGTGGCCTGGCCACCATCTTTGAACCC TGAATCAAGCTTTTGGGCATCCTTCCTCGGCCTTTCTTGTCATCTCTTCTTTCCCTTTGTAGCCGATCTCTAGGC GGCCCTGTGCAGGACCAGAAGTAATTATACTAAAGTATCAAGAAAGGGAGTTAGGGCTTAAACTATTCTGTCTAG ATGTCCCAGATAGTTCCCATTCTACTTGGAGATTTGGCTTTTCCAAGAAAAGCTAGAGCAGAGCAGCCCTTCTCC CACAAGCCCTCCCACCCCGTGCAGCCACATACCTGTACAGAATGGTAACTAAGGGTGCTGTGCCCAACCCTGCG  ${\tt ACTAGCAAGGCTCGCAGCAAGAGCCCTCAACTACTTGTGCCAGAGTTTCTCTTGGACCACTCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCCAACTCCCAACTCCCCAACTCCCAACTCCCAACTCCCCAACTCCCCAACTCCCAACTCCCCAACTCCCAACTCCCCAACTCCCCAACTCCCCAACTCCAACTCCCAACTCAACTCAACTCAA$ ACAGGCTACTGCTAAACTTGGCACAGTATCAAGTATAGTACCTCCAAGGACCAGGGCTGGGAAGTCTTTAGTGCT CCACTCAGGCACAAGAGCCACAGTACCCTAGATAGTGTCACATGACACCGTTGTCATCCAAGGATAATACAGACC AACTAGGCTACATCTGTGATGAGCAGCTAGCAAAGCCGCTGGTCTTCTCCTAGGACTAAGTCCAGGTGCCTTCCA CAATCTCATGGTCTTTCAGGTCCCTGGTTACTTTTCTCAAAGGCCATTTCCAAAAGAATACATGCCTTCACATCA CAACCTGTACTGTGAGTCCATTCTAGAGGTCACTGAAAGGCCCTGTAAAGAGAGGACATGGATACGGGACCTGGC  ${\tt CCTGAGGTTATTACTGGCCGTAAGGCAGAGTTAATCCATACAGAAACCAGTGTGTCCATGTGCTCTGCACAAAAA}$  ${\tt CAGACCTGTTGTCCATCCAGTCCACTGACAAGAGGGTTTCCCCGAGAGCCGAAGTGGACTGAAGCTACAGTTTTT}$ AGCTGGTGCGGGCCACAGGCAGGGTCAGATTGAGAAGCAAAGCTGGGGAAGCAGAAGTTGGGAGTCTTGTGT TGCTCCCTCTTCCTGTGTGGTGCTCTGGGTTTCTGTGGATCGTGAAGGCGATCTCAAGAGTGTTTCCCTCCAAAC CATCCTGTGACTTCATGCTAGAAATTTTCTATTGTTTATAGAAACTTTTTGTAGAAACATTAACTCTAAAGCACA TCTGCATGTCAGTAAAAATCTCAGTTTCGTACAG

PCT/US2003/028547

## 2048/6881 FIGURE 1883

WO 2004/030615

CACCANATGGCGGATGACGCCGGTGCAGTGGGGGGGGCCTGGAGGCCCTGGTGGCCCTGGGATGGGGAACCGCGGT
GGCTTCCGCAGAGGTTTCGCCAGTGGCATCCGGGGCCGGGGCCGGGGTCGCAGCCGTGGACCGGGCCGGGGCTGAGGCCGC
GGAGCTCGCGGAGGCAAAGATAAAGGAGTGGATGCCCGTCACCAAGCTGGCCGCCGTTGGTCAAGGACATG
AAGATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCCATTAAGGAATCAGAGATCATTGACTTTTTCCTG
GGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCTGGCCAGCGCACCAGG
TTCAAGGTGACAGGCCGCCGTGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATTGTCTCC
GCACCTGTGCCCAAGAAGCTGCTCATGATGGCTGGTATCGATGACTGCTACACCTCAGCCCAGGGCTGCACTGCC
ACCCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATTTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGG
AAGGAGACTGTATTTACCAAGTCTCCCTATCAGGAATTCACTGACCACCTCGTCAAGACCCACACCAGAGTCTCT
GTGCAGCAGACCCAGGCTCCAGCTGTGGCTACAACATAGGGTTTTTATACAAGAAAAATAAAGTGAATTAAGCGT

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## 2049/6881 FIGURE 1884

CGCGGAGCTCGCGGAGGCAAGGCCAAAGATAAGGAGTGGATGCCCGTCACCAAGCTGGGCCGCTTGGTCAAGGAC
ATGAAGATCAAGTCCCTGGAGGAGATCATCTCTTCTCCCTGCCCATTAAGGAATCAGAGATCATTGACTTTTTC
CTGGGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCTGGCCAGCGCACC
AGGGCTCTCCATTGTCCCCGTGCACAGAGGCTACTAGGGGAACAAGATCGGCAAGCCCCACACCGTCCCTGCAA
GGTGACAGGCCGCCGTGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATTGTCTCCGCACC
TGTGCCCAAGAAGCTGCCATTTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGGAAGGAGACCTGTATTTACC
AAGTCTCCCTATCAGGAATTCACTGACCACCTCGTCAAGACCCACACCAGAGTCTCTGTGCAGCAGACCCAGGCT
CCAGCTGTGGCTACAACATAGGGTTTTTATACAAGAAAAATAAAGTGAATTAAGCGTG

 ${\tt MPVTKLGRLVKDMKIKSLEEIYLFSLPIKESE\\ \verb||IDFFLGDSLKDEVLKIMPVQKQTRAGQRTRLHCPRAQRLLGE|\\ QDRQAPHRPLQGDRPLRLCAGAPHPCTQGHWHRLRTCAQELMPSLRPTAT|}$ 

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## FIGURE 1886

GTGTTCCGGCCGATCCCACCTCTTCTCGACCCTGGACGTCTACCTTCCGGAGGCCCACATCTTGCCCACTCCGCG CCCGAAATGGAGCTGGCCCGGAATGGGGAGGGTTCGAAGAAAACATCCAGGGCGGAGGCTCAGCTGTGATTGACA TGGAGAACATGGATGATACCTCAGGCTCTAGCTTCGAGGATATGGGTGAGCTGCATCAGCGCCTGCGCGAGGAAG AAGTAGACGCTGATGCAGCTGATGCAGCTGCTGAAGAGGAGGATGGAGAGTTCCTGGGCATGAAGGGCTTTA  ${\tt AGGGACAGCTGAGCCGGCAGGTGGCAGATCAGATGTGGCAGGCTGGGAAAAGACAAGCCTCCAGGGCCTTCAGCT}$ TGTACGCCAACATCGACATCCTCAGACCCTACTTTGATGTGGAGCCTGCTCAGGTGCGAAGCAGGCTCCTGGAGT CCATGATCCCTATCAAGGTGGTCAACTTCCCCCAGAAAATTGCAGGTGAACTCTATGGACCTCTCATGCTGGTCT TCACTCTGGTTGCTATCCTACTCCATGGGATGAAGACGTCTGACACTATTATCCGGGAGGGCACCCTGATGGGCA CAGCCATTGGCACCTGCTTCGGCTACTGGCTGGGAGTCTCATCCTTCATTTACTTCCTTGCCTACCTGTGCAACG CCCAGATCACCATGCTGCAGATGTTGGCACTGCTGGGCTATGGCCTCTTTGGGCATTGCATTGTCCTGTTCATCA TAGCAGTGTTGGTGTCTCGGACCGTGGGCCCCACACAGCGGCTGCTCCTCTGTGGCACCCTGGCTGCCCTACACA TGCTCTTCCTGCTCTATCTGCATTTTGCCTACCACAAAGTGGTAGAGGGGATCCTGGACACACTGGAGGGCCCCA ACATCCCGCCCATCCAGAGGGTCCCCAGAGACATCCCTGCCATGCTCCCTGCTGCTCGGCTTCCCACCACCGTCC  ${\tt TCAACGCCACAGCCAAAGCTGTTGCGGTGACCCTGCAGTCACAC\underline{{\tt TGA}}{\tt CCCCACCTGAAATTCTTGGCCAGTCCTC}}$ TTTCCCGCAGCTGCAGAGAGGGGGGGAGACTATTAAAGGACAGTCCTGATGACATGTTTCGTAGATGGGGTTTGCA GCTGCCACTGAGCTGTAGCTGCGTGAGTACCTCCTTGATGCCTGTCGGCACTTCTGAAAGGCACAAGGCCAAGAA CTCCTGGCCAGGACTGCAAGGCTCTGCAGCCAATGCAGAAAATGGGTCAGCTCCTTTGAGAACCCCTCCCCACCT TCTGG

MATTAAPAGGARNGAGPEWGGFEENIQGGGSAVIDMENMDDTSGSSFEDMGELHQRLREEEVDADAADAAAAEEE DGEFLGMKGFKGQLSRQVADQMWQAGKRQASRAFSLYANIDILRPYFDVEPAQVRSRLLESMIPIKVVNFPQKIA GELYGPLMLVFTLVAILLHGMKTSDTIIREGTLMGTAIGTCFGYWLGVSSFIYFLAYLCNAQITMLQMLALLGYG LFGHCIVLFITYNIHLHALFYLFWLLVGGLSTLRMVAVLVSRTVGPTQRLLLCGTLAALHMLFLLYLHFAYHKVV EGILDTLEGPNIPPIQRVPRDIPAMLPAARLPTTVLNATAKAVAVTLQSH

GCGGAAGCGGCGCCATTCGTCTTCCGAGCGCTACTGCCAGCTGATGCCGGGAGCTAACTACCGCGCCGGGGCCGG GGCCGGGGCCCGACGTCCCCGCGGGGCCCGGGACCGCGAGGAGGACGGCGGGGGCCTGGAGCCCGCGGC CGTGGCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATTGCAGAGCCAAGTGGG GACTAAGACGTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAAACAAGCTTCTAGACCACCTATCCAAAATGC ATGTGTTGCAGATAAGCACAGGCCTCTGGAAATGTCAGCCAAGATCCGAGTACCATTTTTACGTCAGGTTGTTCC CATTAGTAAAAAGGTAGCCCGGGACCCTCGCTTTGATGATCTGTCAGGGGAATATAATCCTGAGGTGTTTGACAA AACATACCAATTCTTGAATGACATCCGAGCGAAAGAGAAAGAGTTGAAGAAGCACCTTTCAGGAGAGGAGCATGA GAAACTGCAGCAACTGCTTCAGCGAATGGAGCAGCAAGAAATGGCACAGCAGGAACGAAAGCAACAGCAGGAGCT GCACCTGGCCCTGAAGCAAGAACGTCGGGCTCAGGCCCAGCAGGGCCATCGGCCATACTTCCTGAAAAAATCTGA GCAGCGCCAGTTGGCACTAGCTGAGAAGTTCAAGGAGCTGAAACGCAGCAAGAAATTGGAGAACTTCTTGAGTCG AAAGAGGCGACGAAATGCAGGCAAGGACAGGAGACATCTCCCTTTGAGCAAAGAGTAATAAGGAACTATCCTCTG  $\verb|CTCTGCCACTGCCCCAGGGAGACATGGATCTGTGAGGACAGATTTGGCCACGGCTGGTTTCCGTTCAAGGGCAAGGCCACGGCTGGTTTCCGTTCAAGGGCAAGGCCACGGCTGGTTTCCGTTCAAGGGCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCAAGGCTGGTTTCCGTTCAAGGGCCAAGGCCACGGCTGGTTTCCGTTCAAGGGCCAAGGCCAAGGCTTGTTCCGTTCAAGGGCCAAGGC$ GATCACAGCTGCCCTTGAATCTCATTGCCTCAGAGAAGACTAGAGGGCTCTTGGACTATCCCTAGGGCTACACAA GAATAGTTCAGCCTTCTGCCATGCCACACAGCCTCAGCTTGAATCTGGTTCATTGCGTCCTCGTGTTCTTCTCTC ATCCTTGCCTTAAACCAGGGATTCTGATACCGAAGAAGAGGGGCCAATGAAAACCATGGAGTCTGTTCGTGACTC CCTTCTTTTTGTGTTTCCCCCCCGAAACAGAGTCTCGCTCTGTCACCCAGGCTAGAGTACAGTGGTGCAATCTCG CCTCACTGCAACCTCCACCTCCCAGGTTCAAGTGATTCTTGTGCCTCAGCCTCCCGAGTAGCTGACATCCGCCAC CAAGCCCAGCTAATT

MPGANYRAGAGAGARRPRGARDREEDGGGLEPAAVARDLLRGTSNMSFEELLELQSQVGTKTYKQLVAGNSPK KQASRPPIQNACVADKHRPLEMSAKIRVPFLRQVVPISKKVARDPRFDDLSGEYNPEVFDKTYQFLNDIRAKEKE LKKHLSGEEHEKLQQLLQRMEQQEMAQQERKQQQELHLALKQERRAQAQQGHRPYFLKKSEQRQLALAEKFKELK RSKKLENFLSRKRRNAGKDRRHLPLSKE

GCTTGGCTGTTTATCTCGTTGGGGACTAAGGCGTCGGTTGGCGCGCAACGGGTTCTAGGCTGCAGCAGCTCG AGGACCCGCGCCCCGGCCCGGCCTGGCAGATAGCAGAGGCAGCCAGGCCGTGCCGGGGGGGCATGTTGCT GTAACCAGTGGCCCAGGGGATGTTACGGTGGACAGTGCACCTGGAGGGCGCGCCCGCAGGGTGAACCATGCTGC AGTGGCTGTCGGGCATCGGGTATACTCCTTCGGGGGTTACTGCTCTGGTGAAGACTATGAGACACTGCGTCAGAT AGATGTGCACATTTTCAATGCAGTGTCCTTGCGTTGGACAAAGCTGCCCCCGGTGAAGTCTGCCATCCGTGGGCA AGCTCCTGTGGTACCCTACATGCGCTATGGACACTCAACCGTCCTCATCGACGACACAGTCCTCCTTTGGGGCGG GCGGAATGACACCGAAGGGGCCTGCAATGTGCTCTATGCCTTTGACGTCAATACGCACAAGTGGTTCACACCCCG AGTGTCAGGGACAGTTCCTGGGGCCCGGGATGGACATTCAGCCTGTGTCCTAGGCAAGATCATGTACATTTTTGG GGGCTACGAGCAGCAGGCGGACTGTTTTTCCAATGACATTCACAAGCTAGATACCAGCACCATGACATGGACTCT TGACACCAGAACTGAGGCTTGGCTGGACTGTCCCCCGACTCCAGTGCTGCCTGAGGGGCGCCGGAGCCACTCGGC CTTTGGCTACAATGGGGAGCTGTACATCTTTGGTGGTTATAATGCAAGGCTGAACCGGCACTTCCATGACCTCTG GAAGTTTAATCCTGTGTCCTTTACCTGGAAAAAGATTGAACCGAAGGGGGAAGGGGCCATGTCCCCGCCGGCGCCA GTGCTGCTGTATTGTTGGTGACAAGATTGTCCTCTTTGGGGGTACCAGTCCATCTCCTGAGGAAGGCCTGGGAGA TGAATTTGACCTTATAGATCATTCTGACTTACACATTTTGGACTTTAGCCCTAGTCTGAAGACTCTGTGCAAACT GGCCGTGATTCAGTATAACCTAGACCAGTCCTGTTTGCCTCATGATATCAGGTGGGAGCTGAATGCCATGACCAC  $\tt CAACAGCAATATCAGTCGCCCCATCGTCTCCCCATGGG\underline{TAG}GAGGAAGTTTCTGCCACCTCCCTCTGAGCC$ GTGGAGTTGTTGGGCGAGAGGTGTTCTCTGTGCTGTGAATTCAGTGGGGAGCTGTAGCGGGGTGGGGGCCTAGGTT CCTCCCCCTTGGGCCGAGGGCCCCTTCCCCTTGGTGCTCCCCATCCACCTCCTTTCAGCTGCTCCTGGGC CTGAGCCTCAGGAGCTTCCCCCTCTCCCCTTTGCCTATCCCCTCCCCTCTGAGCCTTGAGCCTTGACTGGGA GCTGAAAGGAGTTGCAGCTGTTGGCATGAGACCTCCTTCTCCCCGTCTTGGGGAGGTGGGGACCAGCAGATAAAT CAAA

MLRWTVHLEGGPRRVNHAAVAVGHRVYSFGGYCSGEDYETLRQIDVHIFNAVSLRWTKLPPVKSAIRGQAPVVPY
MRYGHSTVLIDDTVLLWGGRNDTEGACNVLYAFDVNTHKWFTPRVSGTVPGARDGHSACVLGKIMYIFGGYEQQA
DCFSNDIHKLDTSTMTWTLICTKGSPARWRDFHSATMLGSHMYVFGGRADRFGPFHSNNEIYCNRIRVFDTRTEA
WLDCPPTPVLPEGRRSHSAFGYNGELYIFGGYNARLNRHFHDLWKFNPVSFTWKKIEPKGKGPCPRRRQCCCIVG
DKIVLFGGTSPSPEEGLGDEFDLIDHSDLHILDFSPSLKTLCKLAVIQYNLDQSCLPHDIRWELNAMTTNSNISR
PIVSSHG

CCTTCAATGTGAAGCTAATATCTCCTATAGCATAGTTAATGTTTATTCAACAAATATTCATGCAGCGGAGTCAAG AACACACCACGATGGCGGAGAAAGGAAGAGACGCCGAGCGGCCGAGTGCGGCCGAGCAAAGCCGGAGCCGAGCG GGGCCGCAGGAGACGGGCCGGGTCCGGACGGGCCGAGATGCCCTATAAACTGAAAAAGGAGAAGGAGCCCCCCAA GGTTGCCAAATGCACAGCCAAGCCTAGCAGCTCGGGCAAGGATGGTGGAGGCGAGAACACTGAGGAGGCCCAGCC GCAGCCCCAGCCCCAGCCCCAAGCCCAAGCCCAGTCTCAGCCACCGTCATCCAACAAGCGTCCCAGCAATAGCAC GCCGCCCCCACGCAGCTCAGCAAAATCAAGTACTCAGGGGGGCCCCAGATTGTCAAGAAGGAGCGACGGCAAAG CTCCTCCCGCTTCAACCTCAGCAAGAATCGGGAGCTGCAGAAGCTTCCTGCCCTGAAAGATTCGCCAACCCAGGA GCGGGAGGAGCTGTTTATCCAGAAGCTACGCCAGTGCTGTGTCCTCTTTGACTTCGTGTCAGACCCACTCAGTGA CCTCAAATTCAAGGAGGTGAAGCGGGCAGGACTCAACGAGATGGTGGAGTACATCACCCATAGCCGTGATGTTGT CACTGAGGCCATTTACCCTGAGGCTGTCACCATGTTTTCAGTGAACCTCTTCCGGACGCTGCCACCTTCATCGAA TCCCACAGGGGCTGAGTTTGACCCAGAGGAAGATGAGCCCACCCTGGAAGCTGCTTGGCCACATCTCCAGCTCGT GTATGAGTTCTTCTTACGTTTCCTTGAGTCTCCTGATTTCCAGCCAAACATAGCCAAGAAGTACATCGACCAGAA GTTTGTACTTGCTCTCCTAGACCTATTTGACAGTGAGGATCCTCGAGAGCGGGACTTCCTCAAGACCATTTTGCA TCGCATCTATGGCAAGTTTTTGGGGCTCCGGGCTTATATCCGTAGGCAGATCAACCACATCTTCTACAGGTTCAT CTACGAGACGGAGCATCACAACGGGATTGCTGAGCTCCTGGAGATCCTGGGCAGCATCATCAATGGCTTTGCTCT GCCCCTTAAAGAAGAGCACAAGATGTTCCTCATCCGTGTCCTACTTCCCCTTCACAAGGTCAAGTCCCTGAGTGT GGGACTTCTCAAGTTTTGGCCCAAGACCCACAGCCCCAAGGAGGTGATGTTCTTGAATGAGCTGGAGGAGATTCT GGACGTCATTGAACCTTCTGAGTTCAGCAAAGTGATGGAACCCCTCTTCCGCCAGCTGGCCAAGTGTGTCTCTAG CCCCCATTTCCAGGTGGCAGAGCGTGCTCTCTATTACTGGAACAATGAGTACATCATGAGCCTGATAAGTGACAA TGCTGCCCGAGTCCTCCCCATCATGTTCCCTGCACTCTACAGGAACTCCAAGAGCCACTGGAACAAGACAATCCA TGGACTGATCTATAATGCCCTGAAGTTGTTTATGGAAATGAATCAGAAGCTGTTTGATGACTGCACACAACAATA CAAGGCAGAGAAGCAGAAGGGCCGGTTCCGAATGAAGGAAAGGGAAGAGATGTGGCAAAAAATCGAGGAGCTGGC CCGGCTTAATCCCCAGTATCCCATGTTCCGAGCCCCTCCACCACTGCCCCCTGTGTACTCGATGGAGACAGAGAC CCCCACAGCTGAGGACATCCAGCTTCTGAAGAGGACTGTGGAGACTGAGGCTGTTCAGATGCTAAAAGACATCAA GAAGGAGAAAGTGCTGCGGGGGGAAGTCGGAGCTGCCCCAGGACGTGTACACCATCAAGGCACTGGAGGCGCA  $\texttt{CAAGCGGGCGGAAGAGTTCCTAACTGCCAGCCAGGAGGCTCTC} \underline{\textbf{TGA}} \texttt{CCCCTCACGTTCCTACCACAGGGCCACAG}$ CCCACACAGCCCTGGGACACTGCCCTGGCCCTCCATACTCTGCTCCCTACTGGCTGTCTTGGGGGAAGGCAGCGC CTCTCTAGCTACTCAAGGGAGGGGATGTGGGCACTTGAAGCAGGGACACCCACAGAATGGTCCCTCTTCTCCCC AAAAGGTGTTCATGCCTCCCTGTGGCTAGTACAGGCTGAGCACTAAGATGCTTAGTGCTCAGACAACCTGGGGAT GGAACAGCAGGAGATTATTCTCACCAAAGTTATGTCAAGCCCCATTGGTCCCAGAGTAGCTGAAGGGAAGCCAAC  $\tt CCCCCTGCAGCACAAATAGGCCCCCCAGTCCCAGCCGTGTGCTGGCAGATAGGGTTGTATTATTTCTTCTTACCC$ CATGCCTGACCAAGGGAGGTCAAAAGGAGAAAAGTATAGGCTGTGGACAATAACTGATGAATATAGGGCCCAGAT GGACCAAGTGGGGCCGGGGAGGGATGAATAAACACCCTACCCCGTGCCCTGTCTTTTGGTGAGCAGCAGCCCTGGG CCTTCTCTTGTCCCTTATAGGTACCTTGGAGGGGCCAGGGGCTGAGGAAGGCCGGACCCAGGTTCCAGGGGCGCA GGCAGTGCGGCTTTTGGCTGTGCATAGGGTGCTTTATTCTCCACAGAGTGATACATGCTAAGGTGGGTTGGGC TTGGACCGATGTCCCCATATGTACAGAACTGAATAAAGTGGGTCTCTG

MPYKLKKEKEPPKVAKCTAKPSSSGKDGGGENTEEAQPQPQPQPQPQPQAQSQPPSSNKRPSNSTPPPTQLSKIKYS
GGPQIVKKERRQSSSRFNLSKNRELQKLPALKDSPTQEREELFIQKLRQCCVLFDFVSDPLSDLKFKEVKRAGLN
EMVEYITHSRDVVTEAIYPEAVTMFSVNLFRTLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLESPD
FQPNIAKKYIDQKFVLALLDLFDSEDPRERDFLKTILHRIYGKFLGLRAYIRRQINHIFYRFIYETEHHNGIAEL
LEILGSIINGFALPLKEEHKMFLIRVLLPLHKVKSLSVYHPQLAYCVVQFLEKESSLTEPVIVGLLKFWPKTHSP
KEVMFLNELEEILDVIEPSEFSKVMEPLFRQLAKCVSSPHFQVAERALYYWNNEYIMSLISDNAARVLPIMFPAL
YRNSKSHWNKTIHGLIYNALKLFMEMNQKLFDDCTQQYKAEKQKGRFRMKEREEMWQKIEELARLNPQYPMFRAP
PPLPPVYSMETETPTAEDIQLLKRTVETEAVQMLKDIKKEKVLLRRKSELPQDVYTIKALEAHKRAEEFLTASQE

MDSMPEPASRCLLLLPLLLLLLPAPELGPSQAGAEENDWVRLPSKCEVCKYVAVELKSAFEETGKTKEVIGT GYGILDQKASGVKYTKSDLRLIEVTETICKRLLIIACTRRGPAAIDLPRACQRPLRHYTTWYTKGSRW

## FIGURE 1896

TGATGAAACTGTAACTTACAAGAAAAGGGCTGGGTTTTGAAAATAACACAGGCTCTAAAAAACCCTAAGAAGCGGT GCAACTTTTGGCAGGAATCGGGGTTAGCGGGACCTCAAGGGCTCACTGCGGCTAAGTGAACGCTGACTGGTCCTC CAGCGTGAGCTAGAACAGACGTCTCTATGGTCAAGTAAACAGAGCGTGTGCTGTCTTCCCCATGTGGTGGGGTTG CTCCTGAAAAAGAGGAAGGCTTATCAAGCCCTCAAAGCCACCCAGGCAAAGCAGGCACTTTTGGCAAAGAAGAAGAA CAGAAGAAAGGAAAAGGGCTCAGGTTTAAGCGACTGGAATCATTCCTACATGATTCCTGGCGGCAGAAACGTGAC AAGGTGCGTCTCAGACGACTAGAAGTGAAACCTCATGCCTTGGAATTGCCAGATAAACATTCCTTGGCCTTTGTT GTACGCATCGAAAGGATTGACGGCGTGAGTTTACTGGTGCAGAGAACCATTGCAAGACTTCGCCTAAAGAAAATT TTTAGTGGTGTCTTTGTAAAAGTCACCCCCAGAATCTAAAAATGCTGCGTATAGTGGAACCTTATGTGACCTGG GGATTTCCAAATCTGAAGTCTGTCCGAGAACTCATTTTGAAACGTGGACAAGCCAAGGTCAAGAATAAGACCATC GAAATTGCCTTCCCAGGGAAGCATTTCCAGGAGATCTCATGGTTCTTGTGCCCTTTCCACCTCTCAGTGGCCCGT CTCATCCGTCAGCTGAACTAGACCCAGGTGCCAAACTGCGGTAAATTTTTTATCAGTGAAGTGGAAGCATGTGTT TTGTTTTGGAAATTTTTATCAAGTATCTTCAGAGAAGATTATTTCCTGCTTTATCTTCAGAAACTGGAAAGGGTC AAAGAAAAGACAGTAGCTGGCCGGTCGTGGTGGCTCATGCCTGTAATCCCAACACTTAGGGAGGCTGAGGTGGGC AGATCACCTGAGGTTGGGAGTTCGAGACCAGCCTGACCAACATGGAGAAATGCCATCTCTACTAAAAATACAAAA ATTAGCCGGGCATGGTGGCACGTGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCT GGGAGGTGGAAGTTGCAGTGAGCTGAGATCACGCCATTGCACTCCAGCCTGGGCAACAAGCGAAACTCTGTCTCA AAAAAAAAGAAAAGACAGTAGCATATGTTCATGTCAAGCACCTCTCATCACAGTCGAGTTCCAAGGAAAAATTCC TGTATCCTAGGGTTTAATGTTGGTAAATGAGTCACTCTAGCATTTGTAGAAGGCTCCCTGAGACTCCTGCAGCAG TCGACCAAGCCCAAGGACATAATTGAATCTGGAGAGTCCTGGGGCCTTGTTTTGAAAAAGACTTGAAATACACAT AGGAAGAAAGGCATAAAAATAAATGTTCACTTGTCTCTGC

MISSCTTRKMAEQEQRKIPLVPENLLKKRKAYQALKATQAKQALLAKKEQKKGKGLRFKRLESFLHDSWRQKRDK VRLRRLEVKPHALELPDKHSLAFVVRIERIDGVSLLVQRTIARLRLKKIFSGVFVKVTPQNLKMLRIVEPYVTWG FPNLKSVRELILKRGQAKVKNKTIPLTDNTVIEEHLGKFGVICLEDLIHEIAFPGKHFQEISWFLCPFHLSVARH ATKNRVGFLKEMGTPGYRGERINQLIRQLN

CGCCAGACCCGCGCCCCGCGCTCTCCGGCCCGTCGCCTTGGGACTCGCGAGCCCGCACTCCCGCCCTGCCT CTGCTGGGGGACCAGCGTGTCCTGCAGAGCCTGCTCCGCCTGGAGGAGCGCTACGTACCCCGCGCCTCCTACTTC CAGTGCGTGCAGCGGAGATCAAGCCGCACATGCGGAAGATGCTGGCTTACTGGATGCTGGAGGTATGTGAGGAG CAGCGCTGTGAGGAGGAAGTCTTCCCCCTGGCCATGAACTACCTGGATCGCTACCTGTCTTGCGTCCCCACCCGA AAGGCGCAGTTGCAGCTCCTGGGTGCGGTCTGCATGCTGCCTCCAAGCTGCGCGAGACCACGCCCCTGACC ATCGAAAACTGTGCATCTACACCGACCACGCTGTCTCTCCCCGCCAGTTGCGGGACTGGGAGGTGCTGGTCCTA CCCCGTGACCGACAGGCCTTGGTCAAAAAGCATGCCCAGACCTTTTTGGCCCTCTGTGCTACAGATTATACCTTT GCCATGTACCCGCCATCCATGATCGCCACGGGCAGCATTGGGGCTGCAGTGCAAGGCCTGGGTGCCTGCTCCATG CAGATCGAAGCTGCACTCAGGGAGGCCTCAGGGAAGCCTCTCAGACCAGCTCCAGCCCCAGAGCCCCAAAGCCCCC  ${\tt CGGGGCTCCAGCCAAGGGCCCAGCCAGACCAGCACTCCTACAGATGTCACAGCCATACACCTG}$ ACATCTAAGCCTGAAGGGGCGTCTGTTCCCCCTTCACAAAGCCCAAGGGATCTGGTCCTACCCATCCCCGCAGTG TTGAACGCCCCCCCCCCCCCCGGGGGCTCTCATGTTTTCAACTGCCAAAATGCTCTAGTGCCTTCTAAAGGTGT TGTCCCTTCTAGGGTTATTGCATTTGGATTGGGGTCCCTCTAAAATTTAATGCATGATAGACACATATGAGGGGG AATAGTCTAGATGGCTCCTCTCAGTACTTTGGAGGCCCCTATGTAGTCCGTGCTGACAGCTGCTCCTAGAGGGAG GGGCCTAGGCCTCAGCCAGAGAAGCTATAAATTCCTCTTTGCTTTGCTTTCTGCTCAGCTTCTCCTGTGTGATTG ACAGCTTTGCTGCTGAAGGCTCATTTTAATTTATTAATTGCTTTGAGCACAACTTTAAGAGGACATAATGGGGGC CTGGCCATCCCACAAGTGGTGGTAACCCTGGTGGTTGCTGTTTTCCTCCCTTCTGCTACTGGCAAAAGGATCTTT GTGGCCAAGGAGCTGCTATAGCCTGGGGTGGGGTCATGCCCTCTCCCATTGTCCCTCTGCCCCATCCTCCAG CAGGGAAAATGCAGCAGGGATGCCCTGGAGGTGGCTGAGCCCCTGTCTAGAGAGGGGAGGCAAGCCCTGTTGACAC AGGTCTTTCCTAAGGCTGCAAGGTTTAGGCTGGTGGCCCAGGACCATCATCCTACTGTAATAAAGATGATTGTGA 

MELLCCEGTRHAPRAGPDPRLLGDQRVLQSLLRLEERYVPRASYFQCVQREIKPHMRKMLAYWMLEVCEEQRCEE EVFPLAMNYLDRYLSCVPTRKAQLQLLGAVCMLLASKLRETTPLTIEKLCIYTDHAVSPRQLRDWEVLVLGKLKW DLAAVIAHDFLAFILHRLSLPRDRQALVKKHAQTFLALCATDYTFAMYPPSMIATGSIGAAVQGLGACSMSGDEL TELLAGITGTEVDCLRACQEQIEAALRESLREASQTSSSPAPKAPRGSSSQGPSQTSTPTDVTAIHL

CACCGCGCAAGCGCATCCTGGCCTTTCTTCAGTCCCCACGTGCGATCCTTCCCGGCAACTTTTTCGAGAAAAATG AATGCGGTGCGGGGGGTCCGGGAGAAGCGGCGGGGTCGCGGGACAGGAGAAGCGGAGGAAGAGTATGTGGGG  $\tt CCCCGGCTGAGCCGACGGATTTTGCAGCAAGCACGGCAGCAACAGGAGGAACTCGAGGCCGAGCATGGGACTGGG$ GACGAGGAGTGGCCCACCCTGGAGAAGGCTGCCACAATGACAGCAGCGGGCCATCATGCAGAGGTGGTTGTGGAC CCTGAGGATGAGCGTGCCATAGAGATGTTCATGAACAAGAACCCTCCTGCCAGGCGCACCCTGGCTGACATCATC ATGGAGAAGCTGACTGAGAAGCAGACAGAGGTTGAGACAGTCATGTCAGAGGTGTCGGGCTTCCCTATGCCCCAG CTGGACCCCGGGTCCTAGAAGTGTACAGGGGGGTCCGGGAGGTATTATCTAAGTACCGCAGTGGAAAACTGCCC AAGGCATTTAAGATCATCCCTGCACTCTCCAACTGGGAGCAAATCCTCTACGTCACAGAGCCGGAGGCCTGGACT GCAGCTGCCATGTACCAGGCCACCAGGATTTTTGCCTCTAACCTGAAGGAACGCATGGCCCAGCGCTTCTACAAC CTTGTCCTGCTCCTCGAGTACGAGATGACGTTGCTGAATACAAACGACTCAACTTCCATCTCTACATGGCTCTC AAGAAGGCCCTTTTCAAACCTGGAGCCTGGTTCAAAGGGATCCTGATTCCACTGTGCGAGTCTGGCACTTGTACC CTCCGGGAAGCCATCATTGTGGGTAGCATCATCACCAAGTGCTCCATCCCTGTGTTGCACTCCAGTGCGGCCATG CTGAAAATTGCTGAGATGGAATACAGCGGTGCCAACAGCATCTTCCTGCGACTGCTGCTGGATAAGAAGTATGCA CTGCCTTACCGGGTGCTGGATGCCCTAGTCTTCCACTTCCTGGGGTTCCGGACAGAGAGCGTGAACTGCCTGTG CTGTGGCACCAGTGCCTCCTGACTTTGGTCCAGCGCTACAAGGCCGACTTGGCCACAGACCAGAAAGAGGCCCTC TTAGAACTGCTCCGGCTGCAGCCCCATCCACAGCTATCGCCCGAAATCAGGCGTGAGCTTCAGAGTGCAGTCCCC CGCGATGTGGAAGATGTTCCCATCACCGTGGAGTGAGGAAAACAGTCAGCTGTCCTGGCCAAAGGGGTTTGGAAG GACACCAAGACCCCGTTGGTGACTGAAGATGACACTGAGCTTTAATGGCTGAAGACCCAGATCAGGGCAGTGAC TAGGCCCTTATCCCTGTTTAGTTCTGAGAGCCAACTTGAGATACCATATGCTAGCATTCCCAGTCCCCAGCTGGG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

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## 2066/6881 FIGURE 1901

MNKNPPARRTLADIIMEKLTEKQTEVETVMSEVSGFPMPQLDPRVLEVYRGVREVLSKYRSGKLPKAFKIIPALS
NWEQILYVTEPEAWTAAAMYQATRIFASNLKERMAQRFYNLVLLPRVRDDVAEYKRLNFHLYMALKKALFKPGAW
FKGILIPLCESGTCTLREAIIVGSIITKCSIPVLHSSAAMLKIAEMEYSGANSIFLRLLLDKKYALPYRVLDALV
FHFLGFRTEKRELPVLWHQCLLTLVQRYKADLATDQKEALLELLRLQPHPQLSPEIRRELQSAVPRDVEDVPITV

CTTGGGGTGGGGACCGGGTGAGGGGCCTGACGGCAGAGTCGGTCCAGAACTGCCCGGACAGCGACACGCGAG GAGCCAAAATGGAAGAGGGTGCAAGTCCCCTCCTGGGGCCCCAGACGCCCCCCCTCCTTTCTTGCTGCCTGGAGCAG GGGCAGTGCTGTTAGTGGCTACTCCTGGTGTGAACAGCCCATCCTGGCCACCTTCCACAGGAAACCTGACCTGAA CCCCAAGCCCCAGGATCCAGGTCCACCCAGCCAACTCAGACAGTGACTCAGGCCACCTGCCGGGGGAGGACCCTGA GGATACCCATGCTCAGGAATTCCTGTCTCTGCACCTGCTTAGAACATGGGGTTTTGACTTTAAACTCATTCACAT GAGTATTCATTATCTCTCCTAGGGGGTCTGTATTGTCAAACCAGACTCTAGGGGGCTTTGGCCCCAAGGCGTGAAG CCACACATGCAGGCATCAGTCAGCTATCCTTGCACTCAGTGAGGATCTGCAAGGAGGACCCTCCCAAATGGAGGG  $\texttt{CCTAGTTTCACTCCTCCCCTTCTTCC} \underline{\textbf{ATG}} \\ \texttt{TCTCCTCAGGGTCCTGCAGTTCTGAGCTTGGGTTCCCTTTGCCTGG} \\$ TGGGACAGGGGGTAGCCCGCCTGGTACTTCCCAAGCTTGAAGGACACCCTGTGAGAAGTGTAGGGAGTTGCTGA AGGCCTGTGGCCAGGCCCTGATAAACCTCATCTACTTCTACCATGATGGACAACTCTACTGCGGCCGTCATCATG GGGGAAGCCCCTGCTGCCCCAGCTGCTTCGAGAACCGCTACTCGGATGCAGGCTCGAGCTGGGCCGGGGCACTGG AAGGGCAGGCATTCCTTGGAGCGCCCCCACCGCACCCCCAGACCCAAGCCTCGGGGCCCGCAGCTCTCACCGCG CTCCCAGGCGCGGAGGCGGACGCCCTCTGGTGGAGGCGGGGGACCCTGGCGAGGACTCTCGGCGGCGGCGGCGG CAAACCTCGGTGAACTCTGCAACCCTCTCCCGAACACTCCTTGCTGCTGCCGGCGGTTCCAGCCTGCAAACTCAG AGGGGGCTGCCTGGATCCAGTCCCCAGCAGGAGAACCGACCTGGGGACAAAGCGGAGGCACCCAAAGGGCAGGAG CAATGCCGCCTGGAGACTATTCGTGATCCCAAGGACACCCCTTTCTCCACCTGCTCCTCCTCTCTGACTCGGAA CCTGAAGGATTTTTCTTAGGCGAGCGCCTTCCCCAGTCCTGGAAGACCCCCGGAAGCCTCCAAGCAGAGACAGC AACGCCTCTAAGACGCACTGCACCATGTGCTAGTGGCGCAGCTCAGAGAGGGGATGTGAGTGGGAAAAGGGGT CTGTAAAGCGGGAGAACAAGGCTAGCCTCCCCCTAACAATCCTAGACTGAGACGCAGTCAGGCGCACGCCCGCAA GAGGCGGCGAGGTGACAAGTTTGGAGTGCGCCCCCTTCAGTACTGCGCGTTCTAAGACTTTTGGCGGAGACTTTC TTGGCAAAACCCATTCCCCAAAGCTACGCTTCCCCTGCTGAGATAGCCCCTACCCCCACCTCCACAGGCTGGGAC AGCCCCGTCCCCACCATCCTCCCCAAGCCAATTAAATGATCACAGCACGCGTGACAGTTACCGGCTGGAGAGC CGGAGGTGGGACCGGGACCGTAGAACCGGGCCGCCTCCTCCTAGAGTTCGTGGAGGCGCAG GCCAGACCGGAGGTGCGTCATTCACCGGCGACGCCGATACGGTTCCTCCAGCGAGGCCCATGCGAAGCTTTCCAC TATGGCTTCCAGCACTGTCCCGGTGAGCGCTGCTGGCTCGGCTAATGAAACTCCCGAAATACCGGACAACGTGGG AGATTGGCTTCGGGGCGTCTACCGCTTTGCCACTGATAGGAATGACTTCCGGAGGAACTTGATACTAAATTTGGG ACTCTTTGCTGCGGGAGTTTGGCTGGCCAGGAACTTGAGTGACATTGACCTCATGGCACCTCAGCCAGGGGTGTA GCCAAGTAGTTCTAATGCCACCTGTCGTCTTATCATCTGATTGCAGACAAATGGAATCCTGTGCTGAACCCGAAT CTTCCAAAAAACAGCCTACAATCTGTGACCACCACAAGATGTGCCCTGATGGCAGCTGAAGTTTGATTCAGATGG GCACTTTCTTCCCCTTCCCTGCCTAGTTTCCTTTGTTCCTTGAGTCCACGCAGAATTCCATTCTCTGGTCAGC AGACAGGCTTAAGCTAAAGTATTGCCTCTATTCTGTAAAGTTCTGTACATAGTTCCCAAGCTTCTGCAGGGGGTG ААААААААААААА

# FIGURE 1903

MSPQGPAVLSLGSLCLDTNQAPNWTGLQTLLQQLPPQDIDERYCLALGEEERAELQLFCARRKQEALGQGVARLV LPKLEGHTCEKCRELLKPGEYGVFAARAGEQRCWHQPCFACQACGQALINLIYFYHDGQLYCGRHHAELLRPRCP ACDQLIFSWRCTEAEGQRWHENHFCCQDCAGPLGGGRYALPGGSPCCPSCFENRYSDAGSSWAGALEGQAFLGAP PPHPPDPSLGARSSHRASLAGAFQGPPEPTPRRGRGCGARLPPRRGRRTPSGGGGGPWRGLSAAAAARTAQGLGG AGGWASPPLAAV

WO 2004/030615 PCT/US2003/028547

## FIGURE 1904

CTAGTTAAGGCGGCACAGGCCGAGGCGTAGTGTGGGTGACTCCTCCGTTCCTTGGGTCCCGTCGTCTGTGATAC TGCAGTTCAGCCATCGCAGAACCGCAGCCCCCGTCCGGCGGCCTCACGGACGAGGCCGCCCTCAGTTGCTGCTCC GACGCGGACCCCAGTACCAAGGATTTTCTATTGCAGCAGACCATGCTACGAGTGAAGGATCCTAAGAAGTCACTG GATTTTTATACTAGAGTTCTTGGAATGACGCTAATCCAAAAATGTGATTTTCCCATTATGAAGTTTTCACTCTAC TTCTTGGCTTATGAGGATAAAATGACATCCCTAAAGAAAAAGATGAAAAAATAGCCTGGGCGCTCTCCAGAAAA GCTACACTTGAGCTGACACACAATTGGGGCACTGAAGATGATGCGACCCAGAGTTACCACAATGGCAATTCAGAC CCTCGAGGATTCGGTCATATTGGAATTGCTGTTCCTGATGTATACAGTGCTTGTAAAAGGTTTGAAGAACTGGGA GTCAAATTTGTGAAGAAACCTGATGATGGTAAAATGAAAGGCCTGGCATTTATTCAAGATCCTGATGGCTACTGG  ${\tt ATTGAAATTTTGAATCCTAACAAAATGGCAACCTTAATG} {\tt TAG} {\tt TGCTGTGAGAATTCTCCTTTGAGATTTCAGAAG}$ AAAGGAAACAATGTGATTCAAGATATTTACATACCAGAAGCATCTAGGACTGATGGATCACTGTCCCGATTCAAA TTATTCTTCAGTCCATTTCCCCTTCCTATTTCAGCTGTTCCTTTTCACCTAACTGTTCAGTCATTCTGGTTTTCA AGCAGTGCTTTATCTCATGTCCTTGAATATAGTTGTGTAACTTTATTTTTTTAGGTAATAATTAGAACAGTTCCCT TCAGAGGCTGCATTTGCCTTCTTCTGCCACCTAAATATTACTTCCCTTCAAATCTGCCTTTGAATCATCATTTTT AAAAAAAATTAACATGTTTTTGTTGTAGTTATCTTCTGGGGTTTCAATTCCTCAGAAACAACTTTTTTCACAAC GGAAAGGAAAGAACACTAGTGTTCTTTCAGTAAAGTACAAAGTGTTTATTTTACAAAAGAGTAGGTACTCTTGAG AGCAATTCAAATCATGCTGACAAGGATACTGATAGAAAAAGTGATTTCTTCTTATTATAAAGTACATTTAAAGTT TGGATTATTAATGGATTTAAGAGGGCATCAATCAGCTCAACTCAAGATTTCATAATCATTTTTAGTATTTAGATT GTGCCTCAAAGTTGTAGTACCTCACAATACCTCCACTGGTTTCCTGTTGTAAAAACCTTCAGTGAGTTTGACCAT TGTGCTCTTGGCTCTTGGGCTGGAGTACCGTGGTGAGGGAGTAAACACTAGAAGTCTTTAGTACAAAACTGCTCT AGGGACACCTGGTGATTCCTACACAAGTGATGTTTATATTTCTCATAAAGAGTCTTCCCTATCCCAAGGTCTTCA TGATGCCAGTAGCCATATATGATAAATTATGTTCAGTGATAACTTAGTTATCAGAAATCAGCTCAGTGGTCTTCC CCGCCATGATTCACATTTGATGAGTTTTTAAAAATCAAAGTGATTTTGAAAATCTCTAATGGCTCAGAAAATAAA AACATCCAGTTTGTGGATGACTATATTTAGATTTCTCTAGACTCTAGTGGAAGACCTTTGGAAAGGCCATGCCAA CCGTGCTTGTACTGCTAGAAGCACTTTATGTTTCCTTTTTGGGTGAAATGGATTTATGTGAGTGCTTTAAACAAA TAGCAATACTTATAGACTGAAATAAAATGAAACTTCAAATAAG

MAEPQPPSGGLTDEAALSCCSDADPSTKDFLLQQTMLRVKDPKKSLDFYTRVLGMTLIQKCDFPIMKFSLYFLAY EDKNDIPKEKDEKIAWALSRKATLELTHNWGTEDDATQSYHNGNSDPRGFGHIGIAVPDVYSACKRFEELGVKFV KKPDDGKMKGLAFIQDPDGYWIEILNPNKMATLM

ATGGGAGCTTCGGACCCGGAAGTGGCGCCCTGGGCTCGCGGGGTGCCGCGGGATGGCGGGAGCCGGAGCTGGA GCCGGAGCTCGCGGGGGGCGGGGGGGGGGGGGCTCGAGCTCGCGATCCACCGCCCCGCGCACCACAT GACAACGCCCCGACCACTGAGGCTCTTTTCGTGGCACTGGGCGCGGGGCGTGACGGCGCTCAGCCATCCCCTGCTC TACGTGAAGCTGCTCATCCAGGTGGGTCATGAGCCGATGCCCCCCACCCTTGGGACCAATGTGCTGGGGAGGAAG GTCCTCTATCTGCCGAGCTTCTTCACCTACGCCAAGTACATCGTGCAAGTGGATGGTAAGATAGGGCTGTTCCGA GGCCTGAGTCCCCGGCTGATGTCCAACGCCCTCTCTACTGTGACTCGGGGTAGCATGAAGAAGGTTTTCCCTCCA GATGAGATTGAGCAGGTTTCCAACAAGGATGATATGAAGACTTCCCTGAAGAAAGTTGTGAAGGAGACCTCCTAC GAGATGATGATGCAGTGTTGTCCCGCATGTTGGCCCACCCCTGCATGTCATCTCAATGCGCTGCATGGTCCAG TTTGTGGGACGGGAGGCCAAGTACAGTGGTGTGCTGAGCTCCATTGGGAAGATTTTCAAAGAGGAAGGCTGCTG GGATTCTTCGTTGGATTAATCCCTCACCTCCTGGGCGATGTGGTTTTCTTGTGGGGCCTGTAACCTGCTGGCCCAC TTCATCAATGCCTACCTGGTGGATGACAGCTTCAGCCAGGCCCTGGCCATCCGGAGCTATACCAAGTTCGTGATG GGGATTGCAGTGAGCATGCTGACCTACCCCTTCCTGCTAGTTGGCGACCTCATGGCTGTGAACAACTGCGGGCTG  ${\tt CAAGCTGGGCTCCCCCTTACTCCCCAGTGTTCAAATCCTGGATTCACTGCTGGAAGTACCTGAGTGTGCAGGGC}$ CAGCTCTTCCGAGGCTCCAGCCTGCTTTTCCGCCGGGTGTCATCAGGATCATGCTTTGCCCTGGAGTAACCTGAA  ${\tt TCATCTAAAAAACACGGTCTCAACCTGGCCACCGTGGGTGAGGCCTGACCACCTTGGGACACCTGCAAGACGACT}$  $\tt GTGGGGTTGAGCGGGGGTGGGGCTGCACCCAGTGGATTGGGTCACCCGGCAGACCTAGGGAAGGTGAGGCGAGGT$ GGGGGCCCAGGTTGGATGGGGAAAGGCTAATGGGGTCAGACCCCACCCGTCTACCCCTCCAGTCAGCCCAGCGC CCATCCTGCAGCTCAGCTGGGAGCATCATTCTCCTGCTTTGTACATAGGGTGTGGTCCCCTGGCACGTGGCCACC ATCATGTCTAGGCCTATGCTAGGAGGCAAATGGCCCAGCTCTGCCTGTTTTTTCTCAACACTACTTTTCTGATA TGAGGGCAGCACCTGCCTCTGAATGGGAAATCATGCAACTACTCAGAATGTGTCCTCCTCATCTAATGCTCATCT GTTTAATGGTGATGCCTCGCGTACAGGATCTGGTTACCTGTGCAGTTGTGAATACCCAGAGGTTGGGCAGATCAG TTTGGAAAAAAAAA

MGASDPEVAPWARGGAAGMAGAGAGARGGAAAGVEARARDPPPAHRAHPRHPRPAAQPSARRMDGGSGGLGSG DNAPTTEALFVALGAGVTALSHPLLYVKLLIQVGHEPMPPTLGTNVLGRKVLYLPSFFTYAKYIVQVDGKIGLFR GLSPRLMSNALSTVTRGSMKKVFPPDEIEQVSNKDDMKTSLKKVVKETSYEMMMQCVSRMLAHPLHVISMRCMVQ FVGREAKYSGVLSSIGKIFKEEGLLGFFVGLIPHLLGDVVFLWGCNLLAHFINAYLVDDSFSQALAIRSYTKFVM GIAVSMLTYPFLLVGDLMAVNNCGLQAGLPPYSPVFKSWIHCWKYLSVQGQLFRGSSLLFRRVSSGSCFALE

 $\tt TGTTCTTGAGCCCAGCTTCTTCTCGTCTCCCACCCCAGCTTCCCGGCATTGGAAGAAGGGACCGTCCTCTTCCTT$ GTCTTGGCCACCCAAATCCTGGTATCGAAAGGGTTGAACGGACCGGAAGTGTGCAGCAGCGACGGGTCCCCAGCT AATCGACGCCGGAAGTAGCAATTACTAGACAAGCATTCCGCCGCCGGCTTCGCTATGGCGGCAATTCCCCCAGAT TCCTGGCAGCCCAACGTTTACTTGGAGACCAGCATGGGAATCATTGTGCTGGAGCTGTACTGGAAGCATGCT CCAAAGACCTGTAAGAACTTTGCTGAGTTGGCTCGTCGAGGTTACTACAATGGCACAAAATTCCACAGAATTATC GAAGATGAACTTCATCCAGACTTGAAATTCACGGGGGCTGGAATTCTCGCAATGGCCAATGCGGGGCCAGATACC AATGGCAGCCAGTTCTTTGTGACCCTCGCCCCCACCCAGTGGCTTGACGGCAAACACACCATTTTTGGCCGAGTG AAGATCATTAAGGCATACCCTTCTGGGTAGACTTGCTACCCTCTTGAGCAGCTCTTCTGAGATGGCCCCAGTGAA CCAGCTTCTAGATGACATAGAATGACATGTAATGCTAAATTTCATTTTGGCTTTGCAAGTCATGAAGCTTAGGAG GCCTGGCATCTTGGGTGAGTTAGAGATGGAAGTACATTTTAATAGGATGCTTCTTTTCTCTTCCCCCAGTGCCTA CTTCTTGTGCATGTCTGCTCTGATATACGTCGAACAATGTAGCAGCCACTGTCATTTCTCAGTGGTTTTGCCTAA CCAAACTTCTTCCTAAGGAGATTTATATTCTGGCCTACACAGCAGTCCTTGATGGCTGACAGCCACAGAATTCCA AACCAAGTAGTGTCTGTCAGCCCTCTTAACTCTGTGCACGCCCTATTTCAGTCTTTTACATTTGTTCTTCTAGGG AATGTATGCATCTCTATATATATTTTCCCTCTCAAAACCAGAACATCAACAGTGCTGTTTCTGACACTTCAGACA TCCCACGCAAAGCCACATTGAATTTTTGCCAAATGAAAAACACATCCAACAATCAAGTTTCTAAGAAGGTGTCAA GTGGGGAATAATAATGTATAATAATCAAGAAATTAGTTTATTAAAAGGAAGCAGAAGCATTGACCATTTTTT CCCAGAGAGAGAGAGAAATCTGTAGTGAGCAAAGGACAGACCATGAATCCTCCTTGAGAAGTAGTACTCTCAGAA AGGAGAAGCGCCACTCAAGTTCTTTTAACCCAAGACTTTAGAGAAATTAGGTCCAAGATTTTTATATGTTCAGTT 

 ${\tt MAAIPPDSWQPPNVYLETSMGIIVLELYWKHAPKTCKNFAELARRGYYNGTKFHRIIKDFMIQGGDPTGTGRGGASIYGKQFEDELHPDLKFTGAGILAMANAGPDTNGSQFFVTLAPTQWLDGKHTIFGRVCQGIGMVNRVGMVETNSQDRPVDDVKIIKAYPSG}$ 

 ${\tt MAGCIQEARERWNFDFVTETPLEGDFAWERVRGLGLPKLYLPTGPRRGRDELGGGRRPGTSPALLQGTAEEDHVD} \\ {\tt QPGQHGEISTKNTKISWAWWCTLVIPATWKAEVGGSLEPRRQRLQSAEIIPLYSSLFQGDSEIHLK} \\ {\tt CRUTHER STATE OF STATE$ 

AGCTGAGGTGTGAGCAGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTCGCCGAGGCACCGA GGCACTCAGAGGAGGTGAGAGAGGGGGCGGGCAGACAACAGGGGGACCCCGGGCCGGGCCCAGAGCCGAGCCAAGC GTGCCCGCGTGTCCCCGCGTGTCCGCGAGGATGCGTGTTCGCGGGTGTGTGCTGCGTTCACAGGTGTTTCTGC GGCAGGCGCC<u>ATG</u>TCAGAACCGGCTGGGGATGTCCGTCAGAACCCATGCGGCAGCAAGGCCTGCCGCCGCCTCTT CGGCCCAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCCGTGA GCGATGGAACTTCGACTTTGTCACCGAGACACCACTGGAGGGTGACTTCGCCTGGGAGCGTGTGCGGGGCCTTGG CTCACCTGCTGCTGCAGGGGACAGCAGGAAGACCATGTGGACCTGTCACTGTTGTACCCTTGTGCCTCG CTCAGGGGAGCAGGCTGAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCAT GACAGATTTCTACCACTCCAAACGCCGGCTGATCTTCTCCAAGAGGAAGCCC<u>TAA</u>TCCGCCCACAGGAAGCCTGC AGTCCTGGAAGCGCGAGGGCCTCAAAGGCCCGCTCTACATCTTCTGCCTTAGTCTCAGTTTGTGTGTCTTAATTA TTATTTGTGTTTTAATTTAAACACCTCCTCATGTACATACCCTGGCCGCCCCCTGCCCCCCAGCCTCTGGCATTA GAATTATTTAAACAAAAACTAGGCGGTTGAATGAGAGGTTCCTAAGAGTGCTGGGCATTTTTATTTTATGAAATA TACTTCCTCCCCACTTGTCCGCTGGGTGGTACCCTCTGGAGGGGTGTGGCTCCTTCCCATCGCTGTCACAGG CGGTTATGAAATTCACCCCCTTTCCTGGACACTCAGACCTGAATTCTTTTTCATTTGAGAAGTAAACAGATGGCA CTTTGAAGGGGCCTCACCGAGTGGGGGCATCATCAAAAACTTTGGAGTCCCCTCACCTCCTCTAAGGTTGGGCAG GGTGACCCTGAAGTGAGCACAGCCTAGGGCTGAGCTGGGGACCTGGTACCCTCCTGGCTCTTGATACCCCCCTCT GTCTTGTGAAGGCAGGGGGAAGGTGGGGTCCTGGAGCAGACCACCCCGCCTGCCCTCATGGCCCCTCTGACCTGC ACTGGGGAGCCCGTCTCAGTGTTGAGCCTTTTCCCTCTTTGGCTCCCCTGTACCTTTTGAGGAGCCCCAGCTACC TCAGCTCCAGGTGGCTCTGAGGTGCCTGTCCCACCCCCACCCCAGCTCAATGGACTGGAAGGGGAAGGGACACA CAAGAAGAAGGGCACCCTAGTTCTACCTCAGGCAGCTCAAGCAGCGACCGCCCCCCCTCCTAGCTGTGGGGGTGA GGGTCCCATGTGGTGGCACAGGCCCCCTTGAGTGGGGTTATCTCTGTGTTAGGGGTATATGATGGGGGAGTAGAT TTGCACTTTGATTAGCAGCGGAACAAGGAGTCAGACATTTTAAGATGGTGGCAGTAGAGGCTATGGACAGGGCAT GCCACGTGGGCTCATATGGGGCTGGGAGTAGTTGTCTTTCCTGGCACTAACGTTGAGCCCCTGGAGGCACTGAAG TGCTTAGTGTACTTGGAGTATTGGGGTCTGACCCCAAACACCTTCCAGCTCCTGTAACATACTGGCCTGGACTGT TTTCTCTCGGCTCCCCATGTGTCCTGGTTCCCGTTTCTCCACCTAGACTGTAAACCTCTCGAGGGCAGGGACCAC ACCCTGTACTGTTCTGTGTCTTTCACAGCTCCTCCCACAATGCTGAATATACAGCAGGTGCTCAATAAATGATTC TTAGTGACTTTAAAAAAAAAAAAAAAAAAAAAA

 ${\tt MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRGLGLPK} \\ {\tt LYLPTGPRRGRDELGGGRRPGTSPALLQGTAEEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGRKRRQTSMTDF} \\ {\tt YHSKRRLIFSKRKP} \\$ 

CCGGAGGAAAGCGGGAAGACTCATCGGAGCGTGTGGATTTGAGCCGCCGCATTTTTTAACCCTAGATCTCGAAAT GCATCGTGATTCCTGTCCATTGGACTGTAAGGTTTATGTAGGCAATCTTGGAAACAATGGCAACAAGACGGAATT TGAATTTGAAGATCCCCGAGATGCAGCTGATGCAGTCCGAGAGCTAGATGGAAGAACACTATGTGGCTGCCGTGT AGATGATTATCGTAGGAGGAGTCCTCCACCTCGTCGCAGAGTCACCATCATGTCTCTTCTCACCACCCTCTGAAT CTGCATTAGCCAGTCAACTAGCCCTTTCAGCGTCATGTGACCAGCGCCCCATTCAGCTTGGCTGGTGTCGTTT CACATGACCCAGGCTGGCCAGTCGTCAGGTTGCACCGCCCTTTGGTTCCCGAGCATGCTGTTTTCTCTCAGCCTT CTCTCCAACCTTAACCAAATCGGCAGCAGCCACCTCGACCGCCCACACATTCCTGGCCAATCAGCTCAGCTGTTT ATTTACCAAATGTCTTCACAACAACTACAGCAGCAGCCTTCGGCTAACAAAAAGCAGGAAAAATCCACAACACC CCCTTCGCCAACCAACTAAATCCAACGCAACATCTGGCAAAACCTTTTCAGCAAATTCTTCCTGGCCGTCAGTCC GGCAGCCTCACCTCACCATTTCTAGCTTGTTGAAACCCAAAACTAATCTCCAAGAAGGAGAAGCTTCTCTCGCAG CCGGAGCAGGTCCCTTTCTAGAGATAGGAGAGAGAGAGATCGCTGTCTCGGGAGAGAAATCACAAGCCGTCCCG ATCCTTCTCTAGGTCTCGTAGTCGATCTAGGTCAAATGAAAGGAAATAGAAGACAGTTTGCAAGAGAAGTGGTGT ATTTTTAAGATGTTTTAGCTGTTCAAATCTGTTTGTCTCTTGAAACAGTGACACAAAGGTGTAATTCTCTATGGT TTGAAATGGATCATACGAGGCATGTAATACCAAGAATTGTTACTTTACAATGTTCCCTTAAGCAAAATTGAATTT ATTTAAATACAGAAACATGGCAAAAATTGAACTAAGATTTACTTTTTTTCCATAGCTGGGATATAGGCTGCA GCTATAGTTGAACAAGCAGTCTTTAAAAACTGCTGTGAAACACAGGCCATCAGGGAAAACGAAATGCTGCACTAT TAAATTAGAGGTTTTTGAAAAATCCAACTCTCATCCTGGGCAGAGGTTGCCTAGTTGGTATAGAATGTTAAGTTT CAAGAAAGTTTACCTTTGCTTTAGGTCATAAGTTCCTTATTTGATTGCTGTATATGGATACATGGCTGTTCGTGA CATTCTTTATGTGCAAATTTGTGATTTCAAAAATGTCCTGCCAGTTTAAGGGTACATTGTAGAGCCGAACTTTGA GTTACTGTGCAAGATTTTTTTTTCATGCTGTCATTTGTAATATGTTTTGTGAGAATCCTTGGGATTAAAGTTTTG GTTACAAATTGTTCTTTAACTTGAAAGCCTGTTTTTCCTTGCAAACTCAAATCTGTGAGCTTGGTACCAAGTCCA GGTATAACATTCCTATTGGAAGCCATACTTATATTTTCTTGTAAAGTGCTTTTGAATTAATAAAATATTAGCATA ATTGTGTATAGTCAGTTGAACCCACTGTTACCATTGTTCTTATCCCATGGGAAGCAGTTGGTTACACGATTCTTA TTTTATAAGAAACAGCTGAGAGGCACTATGGATTAGTCTTCTGAAGTGAAGGAAATATAGATGTCACCTAAGTGA TAGTTAACCCATTTTTTTTTTTTTTAGGCATAGAAGCCAGTTCAGGGTCCATAATATTTAGTGACCAACATTTTA AAGTATAGCAGCAACCTGGTTCTTAAACACAAAGTAAGTTGCCCATTAACAAATGGCTTTTATCTTTAGCATGAA AACTTTCCACAGGTCTAAAAATTGCTTCCATTTTATAATTTGAGGTGTTGCATGGGAATTCTAAGCTGATCCATC TTAGAAAATGGCAGGTGTTGTAATTTCAAATTTTTGTGCAATTAGATTAAATCATAATGCAACAGT

 ${\tt MHRDSCPLDCKVYVGNLGNNGNKTELERAFGYYGPLRSVWVARNPPGFAFVEFEDPRDAADAVRELDGRTLCGCR} \\ VRVELSNGEKRSRNRGPPPSWGRRPRDDYRRRSPPPRRRVTIMSLLTTL$ 

### 2081/6881 FIGURE 1916A

CAAAGGAAATCTGAAACTCAGCACCGAGGCTCTGCTCCCCACTCTGAGAGTGATCTACCAGAGCAGGAAGAGGAG ATTCTGGGATCTGATGATGATGAGCAAGAAGATCCTAATGATTATTGTAAAGGAGGTTATCATCTTGTGAAAATT GGAGATCTATTCAATGGGAGATACCATGTGATCCGAAAGTTAGGCTGGGGACACTTTTCAACAGTATGGTTATCA TGGGATATTCAGGGGAAGAATTTGTGGCAATGAAAGTAGTTAAAAGTGCTGAACATTACACTGAAACAGCACTA GATGAAATCCGGTTGCTGAAGTCAGTTCGCAATTCAGACCCTAATGATCCAAATAGAGAAATGGTTGTTCAACTA CTAGATGACTTTAAAATATCAGGAGTTAATGGAACACATATCTGCATGGTATTTGAAGTTTTGGGGCATCATCTG CTCAAGTGGATCATCAAATCCAATTATCAGGGGCTTCCACTGCCTTGTGTCAAAAAAATTATTCAGCAAGTGTTA GTGAATGAGCAGTACATTCGGAGGCTGGCTGCAGAAGCAACAGAATGGCAGCGATCTGGAGCTCCTCCGCCTTCC GGATCTGCAGTCAGTACTGCTCCCCAGCCTAAACCAGCTGACAAAATGTCAAAGAATAAGAAGAAAATTGAAG AAGAAGCAGAAGCGCCAGGCAGAATTACTAGAGAAGCGAATGCAGGAAATTGAGGAAATGGAGAAAGAGTCGGGC CCTGGGCAAAAAAGACCAAACAAGCAAGAAGAATCAGAGAGTCCTGTTGAAAGACCCTTGAAAGAGAACCCACCT AATAAAATGACCCAAGAAAAACTTGAAGAGTCAAGTACCATTGGCCAGGATCAAACGCTTATGGAACGTGATACA ACATTGAGACATAAAGAGGATCTACATAATGCTAATGACTGTGATGTCCAAAATTTGAATCAGGAATCTAGTTTC CTAAGCTCCCAAAATGGAGACAGCAGCACATCTCAAGAAACAGACTCTTGTACACCTATAACATCTGAGGTGTCA AGCATTCGGGCAGAGATACCCTGTGAAGATGAACAAGAGCAAGAACATAACGGACCACTGGACAACAAAGGAAAAA TCCACGGCTGGAAATTTTCTTGTTAATCCCCTTGAGCCAAAAAATGCAGAAAAGCTCAAGGTGAAGATTGCTGAC CTTGGAAATGCTTGTTGGCACAAACATTTCACTGAAGATATTCAAACAAGGCAATATCGTTCCTTGGAAGTTCTA TATTTGTTTGAACCTCATTCAGGGGAAGAGTACACTCGAGATGAAGATCACATTGCATTGATCATAGAACTTCTG GGGAAGGTGCCTCGCAAGCTCATTGTGGCAGGAAAATATTCCAAGGAATTTTTCACCAAAAAAAGGTGACCTGAAA CATATCACGAAGCTGAAACCTTGGGGCCTTTTTGAGGTTCTAGTGGAGAAGTATGAGTGGTCGCAGGAAGAGGCA GCTGGCTTCACAGATTTCTTACTGCCCATGTTGGAGCTGATCCCTGAGAAGAGAGCCACTGCCGCCGAGTGTCTC AATCCAACATGTTCATTTGGGTTTGCTTACTTGACCCTGTGGAGATCCCCACAGCCATTGGGCATCCTAGGTGAA TTTGGCCTTGGTTGGGCTCTGCCAAAGACTAATGGACTAAAATGTGAAACAGCCTCTTGCCCTGTACCTTTCCTT CCCATTAGGACATCCTTTAAATTATAAGCATCCTTTTTGAAAAGAGCTATGAAGGTGTATGAGCCCATCCTTTTA TTCATTGACTCTAAGAGTCAAATTTTCTAGTGCATATCCTATTGCCAGCATAAGGATGAGGAGGGGGAAAGGGTC TTAATTCTATGTACAGCAGAGACATTAAACTTGCTGTGTCCGGGCTGCATCATCTTCCTGGACTGTTTCTGTTGT TCTCTGTGTTCACATTTTTTCCTGCAACTTTTAAGCTACTGTCTTTTTTAAATAGCTATATGAACACCAAATTTG GGTACCATTTTATCACTGTTCAAAGCACTGTCAAATTCCTTTCATCCTTTAATAGTTAAGATCTTTGAATCTTCA GTCTGATTTTTAATGTAAGCAAAAACAGAACCATTGAATAGTAATTTCTTGAGAACCTCAGGTGTTCTATAAACA TTGTATCCATGGCTGGCACTTTACTCATTGCACTTGAGTTTATTGCCCCATAACTAAAGGATCAGGATGATGGTA GAACGGAGATCTGGGTTTCAGAGCTTTCCCATTTAAGAAAAATAGATCTTGAGATTCTGATTCTTTTCCAAACAG TCCCCTGCTTTCATGTACAGCTTTTTCTTTACCTTACCCAAAATTCTGGCCTTGAAGCAGTTTTCCTCTATGGCT TGGCACTTTTTTTTGTTGGTCTTGTTTTGTTTTTGTTTTTGGTTGGTTGGTTCGTTATTTTTTAAGATTAGCCAT TCTCTGCTGCTATTTCCCTACATAATGTCAATTTTTAACCATAATTTTGACATGATTGAGATGTACTTGAGGCTT ACATATTCCTCCAGTAAGTAATACTGAAGAGCAAAAGAGAGGCAGGATTGGGGTCACAGCCGCTTCTTCAGCATG GACCAAGTGGGCCTTGGGGATTGCAGCGTTCTCGAAGTGGCTGTAGGACTCGAATTTACAGAAAGCCACAGAGGT GCAACTTGAGGCTCTGCTAGCAAGCCACCAGTGAGGCTATTGGGTAACCACCTTTCTATACAGGAGATTGGAATC TACTTTGTCATTTATCCACCACAGTGACAAAGGAAAAGTGGTGCCGTTATGCAATCCATTTAACTCATAAACATA

### 2082/6881 FIGURE 1916B

MERKVLALQARKKRTKAKKDKAQRKSETQHRGSAPHSESDLPEQEEEILGSDDDEQEDPNDYCKGGYHLVKIGDL FNGRYHVIRKLGWGHFSTVWLSWDIQGKKFVAMKVVKSAEHYTETALDEIRLLKSVRNSDPNDPNREMVVQLLDD FKISGVNGTHICMVFEVLGHHLLKWIIKSNYQGLPLPCVKKIIQQVLQGLDYLHTKCRIIHTDIKPENILLSVNE QYIRRLAAEATEWQRSGAPPPSGSAVSTAPQPKPADKMSKNKKKKLKKKQKRQAELLEKRMQEIEEMEKESGPGQ KRPNKQEESESPVERPLKENPPNKMTQEKLEESSTIGQDQTLMERDTEGGAAEINCNGVIEVINYTQNSNNETLR HKEDLHNANDCDVQNLNQESSFLSSQNGDSSTSQETDSCTPITSEVSDTMVCQSSSTVGQSFSEQHISQLQESIR AEIPCEDEQEQEHNGPLDNKGKSTAGNFLVNPLEPKNAEKLKVKIADLGNACWHKHFTEDIQTRQYRSLEVLIGS GYNTPADIWSTACMAFELATGDYLFEPHSGEEYTRDEDHIALIIELLGKVPRKLIVAGKYSKEFFTKKGDLKHIT KLKPWGLFEVLVEKYEWSQEEAAGFTDFLLPMLELIPEKRATAAECLRHPWLNS

### 2084/6881 FIGURE 1918A

GTTAGCGGAGCACGGGCAAGGCGGAGAGTGACGGAGTCGGCGAGCCCCCGCGGCGACAGGTTCTCTACTTAAAAG ATTACCTCCAAAAAAGACAGGGGAGTATTAAAGATTGTCAAAAGAGTGGGGAATGGTGAGGAAACGCCGATGATT GGAGACAAAGTTTATGTCCATTACAAAGGAAAATTGTCAAATGGAAAGAAGTTTGATTCCAGTCATGATAGAAAT GAACCATTTGTCTTTAGTCTTGGCAAAGGCCAAGTCATCAAGGCATGGGACATTGGGGTGGCTACCATGAAGAAA GGAGAGATATGCCATTTACTGTGCAAACCAGAATATGCATATGGCTCGGCTGGCAGTCTCCCTAAAATTCCCTCG AATGCAACTCTCTTTTTTGAGATTGAGCTCCTTGATTTCAAAGGAGGAGTTTATTTGAAGATGGAGGCATTATC CGGAGAACCAAACGGAAAGGAGGGGATATTCAAATCCAAACGAAGGAGCAACAGTAGAAATCCACCTGGAAGGC CGCTGTGGTGGAAGGATGTTTGACTGCAGAGATGTGGCATTCACTGTGGGCGAAGGAGAAGACCACGACATTCCA ATTGGAATTGACAAAGCTCTGGAGAAAATGCAGCGGGAAGAACAATGTATTTTATATCTTGGACCAAGATATGGT TTTGGAGAGGCAGGGAAGCCTAAATTTGGCATTGAACCTAATGCTGAGCTTATATATGAAGTTACACTTAAGAGC TTCGAAAAGGCCAAAGAATCCTGGGAGATGGATACCAAAGAAAATTGGAGCAGGCTGCCATTGTCAAAGAGAAG GGAACCGTATACTTCAAGGGAGGCAAATACATGCAGGCGGTGATTCAGTATGGGAAGATAGTGTCCTGGTTAGAG ATGGAATATGGTTTATCAGAAAAGGAATCGAAAGCTTCTGAATCATTTCTCCTTGCTGCCTTTCTGAACCTGGCC ATGTGCTACCTGAAGCTTAGAGAATACACCAAAGCTGTTGAATGCTGTGACAAGGCCCTTGGACTGGACAGTGCC AATGAGAAAGGCTTGTATAGGAGGGGTGAAGCCCAGCTGCTCATGAACGAGTTTGAGTCAGCCAAGGGTGACTTT GAGAAAGTGCTGGAAGTAAACCCCCAGAATAAGGCTGCAAGACTGCAGATCTCCATGTGCCAGAAAAAAGGCCAAG GAGCACAACGAGCGGGACCGCAGGATATACGCCAACATGTTCAAGAAGTTTGCAGAGCAGGATGCCAAGGAAGAG GAAGAGAAACCTGAGGGCCACGTA<u>TGA</u>CGCCACGCCAAGGAGGGAAGAGTCCCAGTGAACTCGGCCCCTCCTCAA TGGGCTTTCCCCCAACTCAGGACAGAACAGTGTTTAATGTAAAGTTTGTTATAGTCTATGTGATTCTGGAAGCAA ATGGCAAAACCAGTAGCTTCCCAAAAACAGCCCCCCTGCTGCTGCCCGGAGGGTTCACTGAGGGGTGGCACGGGA AGTTTCTATCAACCTTCAAGTATCCAATTCAGGGTCCCTGGAGATCATCCTAACAATGTGGGGCTGTTAGGTTTT GGTAGGGTAGGGGAAGGAGGATAAGCTTTTGTTTTTTAAATGACTGAAGTGCTATAAATGTAGTCTGTTGCATTT TTAACCAACAGAACCCACAGTAGAGGGGTCTCATGTCTCCCCAGTTCCACAGCAGTGTCACAGACGTGAAAGCCA GTGGCTTTCTACCACACACACCTGTCCCTGGGGGAGTAATTCTGTCATTCCTAAAACACCCTTCAGCAATGATA ATGAGCAGATGAGAGTTTCTGGATTAGCTTTTCCTATTTTCGATGAAGTTCTGAGATACTGAAATGTGAAAAGAG CAATCAGAATTGTGCTTTTTCTCCCCTCCTCTATTCCTTTTAGGGAATAATATTCAATACACAGTACTTCCTCCC AGCATTGCTACTGCTCAGCTTCTTCTTTCATTCTAATCCTTGCTATTAAGAATTTAAGACTTGTGCTTACAATAT TTTTGACCTGGAGTGGATCTATTTACATAGTCATTTAGGATCCATGCAGCTTTTTTTGTCTTTTTAAGATTATTG TTCACCTGCAGGTTTGACACGCAGTTGCTCGCTTTTCCTGCCCTGTCAAGCTTCTCTGTTCTGGCGTGAGTTGTG AAAGAGTTGAAGACAGCTTCCCATGCCGGTACACAGCCAGTAGCCTAAATCTCCAGTACTTGAGCTGACCATTGA ACTAGGGCAAGTCTTAAATGTGTACATGTAGTTGAATTTCAGTCCTTACGGGTAAACAGATTGAGCATGGCTCTC TATTCCCTCAGCCTAAGAAACACTCATGGGAATGCATTTGGCAACCCAAGGAACCATTTGCTTAAACCTGGAACA TCTCACCTTTTTAAATCCTAAAAAACACTGGCAGTTATATTTTAAATTAGTTTTTATTTTTATGATGGTTTTATC AAAAGACTTTTATTATTAGATTGGGACCCCCTTCAAACCTAAAAATCAAGTTATTTCCTTTTATAATACTTTTCT TCCCCATGGAACAAATGGGATCAATTTGTGAGTTTTTTCCTTTAATGATAACTAAAATCCCTCTAATTTCTCATT TATGCTTTTGTCTTTTTATGAAATATTTCTTTTAAAAGCCCCAGTCTCACCTACGAAATATGAAGAGCAAAAGC TGATTTTGCTTACTTGCTAAACTGTTGGGAAAGCTCTGTAGAGCATGGTTCCAGTGAGGCCAAGATTGAAATTTG GGTTCTGAGCAAATAACTACAGGGTGCCCATTACCACTCAAGAAGACACTTCACGTATTCTTGTATCAAATTCAA

### 2085/6881 FIGURE 1918B

1

MTTDEGAKNNEESPTATVAEQGEDITSKKDRGVLKIVKRVGNGEETPMIGDKVYVHYKGKLSNGKKFDSSHDRNE PFVFSLGKGQVIKAWDIGVATMKKGEICHLLCKPEYAYGSAGSLPKIPSNATLFFEIELLDFKGEDLFEDGGIIR RTKRKGEGYSNPNEGATVEIHLEGRCGGRMFDCRDVAFTVGEGEDHDIPIGIDKALEKMQREEQCILYLGPRYGF GEAGKPKFGIEPNAELIYEVTLKSFEKAKESWEMDTKEKLEQAAIVKEKGTVYFKGGKYMQAVIQYGKIVSWLEM EYGLSEKESKASESFLLAAFLNLAMCYLKLREYTKAVECCDKALGLDSANEKGLYRRGEAQLLMNEFESAKGDFE KVLEVNPQNKAARLQISMCQKKAKEHNERDRRIYANMFKKFAEQDAKEEANKAMGKKTSEGVTNEKGTDSQAMEE EKPEGHV

GCCTCCCGCTCCAGCCCGGCTCATTCCGCACATTCCGGCCAGCCCCCTCCCCACGACCCCCTTCCCCGGCCCCC CTTGCGGCTCCCTCGGGCCCGGCGGAGCGGCCCGGAGCGCCCCGCGAGCTCGGACCAGGCTCAGCCGCCC AGTGGGCTCAGGCCCAGAGCCAGAGCAACCAGCACAATAGCGTCCAACAGCTGGAACGCCAGCAGCAGCCCCGG GGAGGCCCGGGAGGATGGGCCCGAGGGCCTGGACAAGGGGCTGGACAACGATGCGGAGGGCGTGTGGAGCCCGGA GGGCAAGATGTACGGCCGAAATGAGTTGATTGCACGCTATATTAAACTGAGGACGGGGAAGACTCGGACGAGAAA ACAGGTGTCCAGCCACATACAGGTTCTAGCTCGGAAGAAGGTGCGGGAGTACCAGGTTGGCATCAAGGCCATGAA CCTGGACCAGGTCTCCAAGGACAAAGCCCTTCAGAGCATGGCGTCCATGTCCTCTGCCCAGATCGTCTCTGCCAG TGTCCTGCAGAACAAGTTCAGCCCACCTTCCCCTCTGCCCAGGCCGTCTTCTCCACTTCCTCGCGGTTCTGGAG CCAGCCGCCCCTGCCGCCGACGCTCAGCAGTTATGAGCCCCTGGCCCCGCTCCCCTCAGCTGCCTCTGTGCC TGTGTGGCAGGACCGTACCATTGCCTCCCCGGCTGCGGCTCCTGGAGTATTCAGCCTTCATGGAGGTGCAGCG GGAGGCAGTAGATGTGCGCCAGATCTATGACAAATTCCCCGAGAAAAAGGGAGGATTGAAGGAGCTCTATGAGAA GGGGCCCCTAATGCCTTCTTCCTTGTCAAGTTCTGGGCCGACCTCAACAGCACCATCCAGGAGGGCCCGGGAGC  $\tt CTTCTATGGGGTCAGCTCTCAGTACAGCTCTGCTGATAGCATGACCATCAGCGTCTCCACCAAGGTGTGCTCCTT$ CCGCTCGCCCATGTGCGAGTACATGATCAACTTCATCCACAAGCTGAAGCACCTGCCCGAGAAGTACATGATGAA CAGCGTGCTGGAGAACTTCACCATCCTGCAGGTGGTCACGAGCCGGGACTCCCAGGAGACCCTGCTTGTCATTGC TTTTGTCTTCGAAGTCTCCACCAGTGAGCACGGGGCCCAGCACCATGTCTACAAGCTCGTCAAAGACTAGGGTGC  ${\tt TCCCTGCCACTGTTCTGCGCTTTAATTGTGGGAGAAGAGAGGAGGAGGGGCTCAGCGGTGGGGCAGCCTGTCCG}$ GGGCGCTGACCCACCATCACCCTGCTCTGCCCAGCCTCGCGTGACCTCAGAGAGGTGGGGATAGGGGACACCTTC AGCCTCCAGCATGTGTGGCCACTGTACCCCCACCCACCCTTGGGGGAGCATGATGGGCAGGTGAGGGCAGGATGG AGACCAAGGGAGTCAGTGAGCAGAGGCCCTGGGAGTGTCCGGTTGGGGTTGGACTGAGGACAGAGGGGCCCACAC TTCCTTGCCCCTTTGTGTCCCAGGCCTGGTGCCCAGACTCCTTGCATGGCTTGTGTGGTCCTCAGACTCCGCACA GCGAGCGTAGGTCTCTGGGTTTCAGATGAAGTGCCCAGGCTCCAGGAAGTTGAGGGACCCACAGGAGAGTGGGC AGAGCTGGAGTTCTCATCCAGGGCTGCTTGTCCCCAGAGCCCAGGTTTATACTACCTCCCTGGGGCGGGGGCTGG CTGGGCAGACCAGAGGCCCAGAGGGAGAGAGTAGCAGAAGGCTTTTGATTTTTCTCTTGCCTGAGGCTTGAATCT GACAAACCCTTGGTGGGCACTGCTCCCTTAGGTTCTTCCCCACCTCAATCTACCTGCCTAGAGTAGCAGCTCCCA GACCCAGTTCTGGGACTGAAGGTTAACCCTTCACCTGCTGTCCCTTCTTAACACCCCAGGCCCCCAGAGCCAGCTG GGCCTGTCCAGCAGCCACCTGTGGGTATTTATGAGTTTCATATGAAGTACTGTGCCCCTTCCCTCATCCCG ACCCTGCCCGAGCTTCCTGAAGGTCCTCACTGTTTGCATATCGCTCAGGCCACCTCCAAACCCCACCTAGGTTTT ATAATGTATATTATATTTTTTTTTTTTTTTTAAAATCCAGCTGTGATGGGTTATATCATAAATGCAGCTTGG GGTTGGAGCAGGGCCCTCAAAGGCCCAGCTCCTGCTC

MSSKVSRDTLYEAVREVLHGNQRKRRKFLETVELQISLKNYDPQKDKRFSGTVRLKSTPRPKFSVCVLGDQQHCD EAKAVĎIPHMDIEALKKLNKNKKLVKKLAKKYDAFLASESLIKQIPRILGPGLNKAGKFPSLLTHNENMVAKVDE VKSTIKFQMKKVLCLAVAVGHVKMTDDELVYNIHLAVNFLVSLLKKNWQNVRALYIKSTMGKPQRLY

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MEGMDVDLDPELMQKFSCLGTTDKDVLISEFQRLLGFQLNPAGCAFFLDMTNWNLQAAIGAYYDFESPNISVPSM SFVEDVTIGEGESIPPDTQFVKTWRIQNSGAEAWPPGVCLKYVGGDQFGHVNMVMVRSLEPQEIADVSVQMCSPS RAGMYQGQWRMCTATGLYYGDVIWVILSVEVGGLLGVTQQLSSFETEFNTQPHRKVEGNFNPFASPQKNRQSDEN NLKDPGGSEFDSISKNTWAPAPDTWAPAPDQTEQDQNRLSQNSVNLSPSSHANNLSVVTYSKGLHGPYPFGQS

CCTCCTCATCCTCTTCTGAGACTGTTGTTTTTTTAGAGCTTGATTGTGGGAGAAAAGCTTGTGTGAAATTCCCTC AGCCAGCCTGCTGAGAAGCGTGGTGCAGCTGGGTCTGGGACTTCACTAGAGCTTACTCTGGAGCACCTATTTTCT GTGCACATGGGAGTGCTCCACTCCCTAGCAGAGCAGAGGGAAGTCTCTGCCAGGTACCCACGCCACAGGCCTCAG  $\texttt{G}\underline{\textbf{ATG}}\texttt{GCTTTTTGTCTGAGGGCCTCATTAGGCCCAGACTGCTGCTGCTGCTACCAGTCTCCTGAGACACTGCCTCC}$ CTGGAGCCCATGCATGCCCAGCTGTTCTTACTGCTTAGTAGCCTTGAAGCAGCACATCTCCACTGTCCCTGGCAG GATTGTGGGAGGCTTCACAACCCCTGCTTTCCTGACTTCCTCTTCTGCCCAACACTGGGTGCCCCTTCCCAGTTT AGGCAACCACTTGGCAAGTTAAATGTCCCAAGCACCTTGTCTCCCTTCCCAAGAACAAACCATTTCTGTGCAC GCCTAGGGCCCCTCTCTGCTCCCTGCCTAGTGGGGTGGTAGTGGCTACCTCTCAGCCCCAATAGTCCCTGCTCC TCTTAGAATCTTCACCAAGTGGCAGGCCACCTCTGGGCAGGACCACCTGCGTCTGGCACCCAGGAGGTGAGGCAG ACACCATGGTTAGGTGATAGGGTCTGAACCCAGTTGGGGAGACAGAGGGGTTCAGACTTGGGAAGAATCTGTCAG AGTTGAATTTGGGGCATTTTTCTACAAGAAGCAGTCAGCCTTCTCCCCCCATAAGGACTGGCTGTAACCTTAAG CCCATCAAAGTTACTTCCAGCCTGGAGAGAACCTCACCAAACAGCTGGTGTGGCCTGAGGGTGGCCATGGTGGGA AATGGGCATGAGAATAAATACCTCCCCAAATTCAATCTGAGCCCAGCAGGAGAGGATGGTAGGGTTGCCAGGGCT CAGAAGTGCAAGCTGATTACTCACCCCACCTGCCTCGCCGCACCTTTCCTTTGTTTCCTTGGGTGAATGCAGGA TGGTGCCTAGGAGGAGATAAAGATGAGGAGGTTTTTCCTTATTGTATAAATGAATATTTGTATGATTAAATTAAC ACACACCAAAAAAAAAAAAAAAAA

MAFCLRASLGPDCCCWYQSPETLPPWSPCMPSCSYCLVALKQHISTVPGRIVGGFTTPAFLTSSSAQHWVPLPSF PAGASWATVSGSGPARVVLLFLLLLGNHTWQVKCPKHLVSLPKNKPFLCTSLEAR

GTCTGACTTCCTCCCAGCACATTCCTGCACTCTGCCGTGTCCACACTGCCCCACAGACCCAGTCCTCCAAGCCTG CTGCCAGCTCCCTGCAAGCCCCTCAGGTTGGGCCTTGCCACGGTGCCAGCAGCCCTGGGCTGGGGTAGGG GACTCCCTACAGGCACGCAGCCCTGAGACCTCAGAGGGCCACCCCTTGAGGGTGGCCAGGCCCCAGTGGCCAAC CTGAGTGCTGCCTCTGCCACCAGCCCTGCTGGCCCCTGGTTCCGCTGGCCCCCAGATGCCTGGCTGAGACACGC CAGTGGCCTCAGCTGCCCACACCTCTTCCCGGCCCCTGAAGTTGGCACTGCAGCAGCAGCTCCCTGGGCACCAG GCAGCTAACAGACACAGCCGCCAGCCCAAACAGCAGCGGCATCGGCAGCGCCAGCCCGGGTCTGAGCAGCGTATC CCCCAGCCACCTCCTGCTGCCCCCGACACGGTGTCGCGGACAGGCTTGGAGAAGGCGGCAGCGGGGGCAGTGGG TCTCGAGAGACGGGACTGGAGTCCCAGTCCACCCGCCACGCCCGAGCAGGGCCTGTCCGCCTTCTACCTCTCTA CTTTGACATGCTGTACCCTGAGGACAGCAGCTGGGCAGCCAAGGCCCCTGGGGCCAGCAGTCGGGAGGAGCCACC TGAGGAGCCTGAGCAGTGCCCGGTCATTGACAGCCAAGCCCCAGCGGGCAGCCTGGACTTGGTGCCCGGCGGGCT GACCTTGGAGGAGCACTCGCTGGAGCAGGTGCAGTCCATGGTGGTGGGCGAAGTGCTCAAGGACATCGAGACGGC CTGCAAGCTGCTCAACATCACCGCAGATCCCATGGACTGGAGCCCCAGCAATGTGCAGAAGTGGCTCCTGTGGAC AGAGCACCAATACCGGCTGCCCCCATGGGCAAGGCCTTCCAGGAGCTGGCGGGCAAGGAGCTGTGCGCCATGTC GGAGGAGCAGTTCCGCCAGCGCTCGCCCCTGGGTGGGGGATGTGCTGCACGCCCACCTGGACATCTGGAAGTCAGC GGCCTGGATGAAAGAGCGGACTTCACCTGGGGCGATTCACTACTGTGCCTCGACCAGTGAGGAGAGCTGGACCGA CAGCGAGGTGGACTCATCATGCTCCGGGCAGCCCATCCACCTGTGGCAGTTCCTCAAGGAGTTGCTACTCAAGCC CCACAGCTATGGCCGCTTCATTAGGTGGCTCAACAAGGAGAAGGGCATCTTCAAAATTGAGGACTCAGCCCAGGT GGCCCGGCTGTGGGGCATCCGCAAGAACCGTCCCGCCATGAACTACGACAAGCTGAGCCGCTCCATCCGCCAGTA  ${\tt TTACAAGAAGGGCATCATCCGGAAGCCAGACATCTCCCAGCGCCTCGTCTACCAGTTCGTGCACCCCATC} \underline{{\tt TGA}}{\tt GT}$ AGGGGGATATGGGTCCTCTGGGGCCTTCGGGACCATGGGGCAGGGGTGCTTCCTCCTCAGGCCCAGCTGCTCCCC TGGAGGACAGAGGGAGACAGGGCTGCTCCCAACACCTGCCTCTGACCCCAGCATTTCCAGAGCAGAGCCTACAG CCACACCTGGCATGGTGCAGGGAGACATCTGCACCCCTGAGTTGGGCAGCCAGGAGTGCCCCCGGGAATGGATAA TAAAGATACTAGAGAACTG

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## 2097/6881 FIGURE 1930

MGSASPGLSSVSPSHLLLPPDTVSRTGLEKAAAGAVGLERRDWSPSPPATPEQGLSAFYLSYFDMLYPEDSSWAA KAPGASSREEPPEEPEQCPVIDSQAPAGSLDLVPGGLTLEEHSLEQVQSMVVGEVLKDIETACKLLNITADPMDW SPSNVQKWLLWTEHQYRLPPMGKAFQELAGKELCAMSEEQFRQRSPLGGDVLHAHLDIWKSAAWMKERTSPGAIH YCASTSEESWTDSEVDSSCSGQPIHLWQFLKELLLKPHSYGRFIRWLNKEKGIFKIEDSAQVARLWGIRKNRPAM NYDKLSRSIRQYYKKGIIRKPDISQRLVYQFVHPI

CTCGAAGTCCAGCCAGCCCTTGGCCTCCAAGCAGGAAAAGGACGGCACTGAGAAGCGGGGCCGGGGCAGGCCGCG TTTGCTCCGCTCCCACCGCCCCACCCCTTCCCCAGGCCCACCATCACCACCGCCTCTGGCCGCCACCCCCATCT TCCACCTGTGCCCTCACCACCACACACACACACCACCACCAGCCGCTGCAGGGCTCCCATGGGCTGAGTGGGGAGCA CATCCCACTTAGCCGCACCCTGCACCTGCGTCCCCACTCCCTTGGTGGTGGGGACATTGCTCTCTGGGCTTT TGGTTTGGGGGCCCCCTCTCTCCTCTCACTGTTCCCTCTGGCTTCCCATAGTGGGGCCTGGGAGGGTTCCCCT GGCCTTAAAAGGGGCCCAAGCCCCATCTCATCCTGGCACGCCCTACTCCACTGCCCTGGCAGCAGCAGGTGTGGC CAATGGAGGGGGGTGCTGGCCCCAGGATTCCCCCAGCCAAACTGTCTTTGTCACCACGTGGGGCTCACTTTTCA TCCTTCCCCAACTTCCCTAGTCCCCGTACTAGGTTGGACAGCCCCCTTCGGTTACAGGAAGGCAGGAGGGTGAG TCCCCTACTCCCTCTCACTGTGGCCACAGCCCCCTTGCCCTCGGCCTGGGATCTGAGTACATATTGTGGTGATG GAGATGCAGTCACTTATTGTCCAGGTGAGGCCCAAGAGCCCTGTGGCCGCCACCTGAGGTGGGCTGGGGCTGCTC  $\tt CCCTAACCCTACTTTGCTTCCGCCACTCAGCCATTTCCCCCTCCTCAGATGGGGCACCAATAACAAGGAGCTCAC$ CCTGCCCGCTCCCAACCCCCCTCCTGCTCCTCCCCCCCAAGGTTCTGGTTCCATTTTTCCTCTGTTCACAA CGCCAAATGTTCATCCTCATTGCCTCCTGTTCTGCCCACGATCCCCTCCCCCAAGATACTCTTTGTGGGGAAGAG GGGCTGGGGCATGCCAGGTGACCGACTACCCCAGTCCCAGGGAAGGTGGGGCCCTGCCCCTAGGATGCTG CAGCAGAGTGAGCAAGGGGGCCCAAATCGACCATAAAGGGTGTAGGGGCCACCTCCTCCCCCTGTTCTGTTGGGG AGGGGTAGCCATGATTTGTCCCAGCCTGGGGCTCCCTCTCTGGTTTCCTATTTGCAGTTACTTGAATAAAAAAA TATCCTTTTCTGG

GGTGGCCACAGAGCAACTTCCTCTAGAGGGAGCTGATTGGAGCCGGGTGCCGCTGGCACCTCTATGATCACTGGA GTCTCGCGGGTCCCTCGGGCTGCACAGGGACAAGTAAAGGCTACATCCAGATGCCGGGAATGCACTGACGCCCAT TCCTGGAAACTGGGCTCCCACTCAGCCCCTGGGAGCAGCCGCCAGCCCCTCGGGACCTCCATCTCCACCCTG CTGAGCCACCGGGTTGGGCCAGGATCCCGGCAGGCTGATCCCGTCCTCCACTGAGACCTGAAAAATGGCTTCGG GGCAAGGCCCAGGTCCTCCCAGGCAGGAGTGCGGAGAGCCTGCCCTGCCTCTGCTTCTGCAGGAACAGGAGGCT GAAGGGGTGGCTGCCCTGCCGACCCAGAGATGGTCACCTTACCTCTGCAACCTACAGCACCATGGGGCAGGTGG GACGGCAGCTCGCCATCATCGGGGACGACATCAACCGACGCTATGACTCAGAGTTCCAGACCATGTTGCAGCACC TGCAGCCCACGGCAGAGAATGCCTATGAGTACTTCACCAAGATTGCCACCAGCCTGTTTGAGAGTGGCATCAATT GGGGCCGTGTGGTGGCTCTTCTGGGCTTCGGCTACCGTCTGGCCCTACACGTCTACCAGCATGGCCTGACTGGCT TCCTAGGCCAGGTGACCCGCTTCGTGGTCGACTTCATGCTGCATCACTGCATTGCCCGGTGGATTGCACAGAGGG GTGGCTGGGTGGCAGCCCTGAACTTGGGCAATGGTCCCATCCTGAACGTGCTGGTGGTTCTGGGTGTGCTTCTGT TGGGCCAGTTTGTGGTACGAAGATTCTTCAAATCATGACTCCCAAGGGTGCCCTTTGGGGTCCCGGTTCAGACCC CIGCCIGGACTTAAGCGAAGTCTTTGCCTTCTCTGTTCCCTTGCAGGGGTCCCCCCTCAAGAGTACAGAAGCTTT AGCAAGTGTGCACTCCAGCTTCGGAGGGCCCCTGCGTGGGGGGCCAGTCAGGCTGCAGAGGCACCTCAACATTGCA TGGTGCTAGTGGGCCCTCTCTCTGGGCCCAGGGGCTGTGGCCGTCTCCTCCTCAGCTCTCTGGGACCTCCTTAG CCCTGTCTGCTAGGCGCTGGGGAGACTGATAACTTGGGGAGGCAAGAGACTGGGAGCCACTTCTCCCCAGAAAGT GTTTAACGGTTTTAGCTTTTTATAATACCCTTGTGAGAGCCCATTCCCACCATTCTACCTGAGGCCAGGACGTCT GGGGTGTGGGGATTGGTGGGTCTATGTTCCCCAGGATTCAGCTATTCTGGAAGATCAGCACCCTAAGAGATGGGA CTAGGACCTGAGCCTGGCCGTCCCTAAGCATGTGTCCCAGGAGCAGGACCTACTAGGAGAGGGGGGCCA TTCTGGGCTTGGGGTGGGGTGGGGTGGAGTCGCAGACCAGAGCTGTCTGAACTCACGTGTCAGAAGCCTCCAA CAGGTGAAGGCTCTCACCCCATCCCTGGGGGCCTTGGGTGAGTGGCCTGCTAAGGCTCCTCCTTGCCCAGACTA CAGGGCTTAGGACTTGGTTTGTTATATCAGGGAAAAGGAGTAGGGAGTTCATCTGGAGGGTTCTAAGTGGGAGAA TAGATGGGGGAACTGTGAATACTTGAACTCTGTTCCCCCACCCTCCATGCTCCTCACCTGTCTAGGTCTCCTCAG GGTGGGGGGTGACAGTGCCTTCTCTATTGGGCACAGCCTAGGGTCTTGGGGGTCAGGGGGGAGAAGTTCTTGATT CAGCCAAATGCAGGGAGGGAGGCAGATGGAGCCCATAGGCCACCCCCTATCCTCTGAGTGTTTGGAAATAAACT GTGCAATCCCCTC

MGQVGRQLAIIGDDINRRYDSEFQTMLQHLQPTAENAYEYFTKIATSLFESGINWGRVVALLGFGYRLALHVYQH GLTGFLGQVTRFVVDFMLHHCIARWIAQRGGWVAALNLGNGPILNVLVVLGVVLLGQFVVRRFFKS

MDPQRSPLLEVKGNIELKRPLIKAPSQLPLSGSRLKRRPDQMEDGLEPEKKRTRGLGATTKITTSHPRVPSLTTV PQTQGQTTAQKVSKKTGPRCSTAIATGLKNQKPVPAVPVQKSGTSGVPPMAGGKKPSKRPAWDLKGQLCDLNAEL KRCRERTQTLDQENQQLQDQLRDAQQQVKALGTERTTLEGHLAKVQAQAEQGQQELKNLRACVLELEERLSTQEG LVQELQKKQVELQEERRGLMSQLEEKERRLQTSEAALSSSQAEVASLRQETVAQAALLTEREERLHGLEMERRRL HNQLQELKGNIRVFCRVRPVLPGEPTPPPGLLLFPSGPGGPSDPPTRLSLSRSDERRGTLSGAPAPPTRHDFSFD RVFPPGSGQDEVFEEIAMLVQSALDGYPVCIFAYGQTGSGKTFTMEGGPGGDPQLEGLIPRALRHLFSVAQELSG QGWTYSFVASYVEIYNETVRDLLATGTRKGQGGECEIRRAGPGSEELTVTNARYVPVSCEKEVDALLHLARQNRA VARTAQNERSSRSHSVFQLQISGEHSSRGLQCGAPLSLVDLAGSERLDPGLALGPGERERLRETQAINSSLSTLG LVIMALSNKESHVPYRNSKLTYLLQNSLGGSAKMLMFVNISPLEENVSESLNSLRFASKVNQCVIGTAQANRK

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#### 2103/6881 FIGURE 1936

AAGTCCCAGGGAGTGGAGCCCTGCCATGGAGCCGTGTGGTGTATGTGTGGTAACACCATGTCTGTGCCCCTGC CAGGGCACAGCTGGGCTGACGCCCTCTCCACCATTCGGCTCCCTCACGTCAAGTACATCTGTTCCCATGAGCCTA GGATCCCTGTGACCCTCAACATGAAGATGGTGATGCCCTCCTGGTTTGACCTGATGGGGCTGAGTCCAGATGCCC TCCCTGCCAATCAATCATCCTGGGAGGCTTTTCACAGGGCCCGGCCCTGTCCCTCTACATGGCCCTCACCTGCC CCCACCCTCTGGCTGGCATCCTGGCTTTGAGCTGCTGGCCGCCTCTGCACCGGGCCTTCCCCCAGGCAGCTAATG GCAGTGCCAAGGACCTGGCCATCCTCCAGTGCCATGGGGAGCTGGACCCCATGGTGCCCGTACGGTTTGGGGCCC TGATGGCTGAGAAGCTCCGGTCTGTTGTCACACCTGCCAGGGTCCAGTTCCAGACATACCTGGGTGTCATGCACA GCTCCTGTCCTCAGGAGATGGCAGCTGTGAAGGAATTTCTTGAGAAGCTGCTGCCTCCTGTCTAACTAGTCGCTG GCCCCAGTGCAGTACCCCAGCTCATGGGGGACTCAGCAAGTAAGCATGGCACCATCTTGGGTCTGAGCTGGTCGA CTTCCTTCCTGGCCTCAGCCACCTGGCTCTGTCTGCAGTAGGGGCAGGCTGCTTTCTTATCCCATTTCCCTGGAG GCGGGCCCCCTGGCAGCAGTATTGGAGGGGCTACAGGCAGCTGGAGAAAGAGGCCCAGCCACTGACCCACTCAC TCAGGACCTCACTAGCCCCACTTTGGGCCCCCTCCTGTAACCTTAGGGTTTGGCCCATGGGGCCCTCCCAG GCCCCTGCCCCAACTGATTCTGCCCAGATAATCTTGTGTCTCCTGCCTCCACTCAGCTGCTTCTCAGTCATGAAC GTGGCCATGGCCCCGGGGGTCCCCTTGCTGCTGTGGGCTCCCTGTCCCTGGGCAGGAGTGCTGGTGAGGAGGTGG AGCCTTTTGAGGGGGGCCTTCCCTCAGCTGTTTCCCCACACTGGGGGGCTGGGCCCTGCCTCCCCGTTACCCTCC TTCCCTGCAGGCCTGGAGCCTGTAGGGCTGGACTGAGGTTCAGGTCTCCCCCCAGCTGTCTCACCCCCACTTTGT TTTCTTCTTGTGTCCTGGATTCTGATAAAATTAAAGAAATTGCTTCCTC

GCCACCGCTAACAGCATCATCGTGCTGGATGATGATGACGAAGATGAAGCAGCTGCTCAGCCAGGGCCCTCCCAC CCACTCCCCAATGCGGCCTCACCTGGGGCAGAAGCCCCTAGCTCCTCTGAGCCTCATGGGGCCAGAGGAAGCAGT AGTTCGGGCGGCAAGAATGCTACAAGCTGGAGAATGAGAAGCTGTTCGAAGAGTTCCTTGAACTTTGTAAGATG CAGACAGCAGCCCCTGAGGTGGTCCCATTCCTCTATAACCGGCAGCAACGTGCCCACTCTCTGTTTTTGGCC TCGGCGGAGTTCTGCAACATCCTCTCTAGGGTCCTGTCTCGGGCCCGGAGCCGGCCCAGCCAAGCTCTATGTCTAC ATCAATGAGCTCTGCACTGTTCTCAAGGCCCACTCAGCCAAAAAGAAGCTGAACTTGGCCCCTGCCGCCACCACC TCCAATGAGCCCTCTGGGAATAACCCTCCCACACACCTCTCCTTGGACCCCACAAATGCTGAAAACACTGCCTCT CAGTCTCCAAGGACCCGTGGTTCCCGGCGGCAGATCCAGCGTTTGGAGCAGCTGCTGGCGCTCTATGTGGCAGAG ATCCGGCGGCTGCAGGAAAAGGAGTTGGATCTCTCAGAATTGGATGACCCAGACTCCGCATACCTGCAGGAGGCA CGGTTGAAGCGTAAGCTGATCCGCCTCTTTGGGCCGACTATGTGAGCTGAAAGACTGCTCTTCACTGACCGGCCGT GTCATAGAGCAGCGCATCCCCTACCGTGGCACCCGCTACCCAGAGGTTAACAGGCGCATTGAGCGGCTCATCAAC AAGCCAGGGCCTGATACCTTCCCTGACTATGGGGATGTGCTTCGGGCTGTAGAGAAGGCAGCTGCCCGACACAGC CTTGGCCTCCCCGACAGCAGCTCCAGCTCATGGCTCAGGATGCCTTCCGAGATGTGGGCATCAGGTTACAGGAG CGACGTCACCTCGATCTCATCTACAACTTTGGCTGCCACCTCACAGATGACTATAGGCCAGGCGTTGACCCTGCA  $\tt CTATCAGATCCTGTGTTGGCCCGGCGCCTTCGGGAAAACCGGAGTTTGGCCATGAGTCGGCTGGATGAGGTCATC$ TCTTCCCACTCTGCAGACACCCCCGAAGCCTCCTTGGATTCTGGTGAGGGCCCTAGTGGAATGGCATCCCAGGGG GAAGAAGAAGAGGAGGAGGCCACAGATTCTGAAGAGGAGGAGGATCTGGAACAGATGCAGGAGGGTCAGGAGGAT GATGAAGAGGAGGACGAAGAGGAAGAAGCAGCAGCAGGTAAAGATGGAGACAAGAGCCCCATGTCCTCACTACAG ATCTCCAATGAAAAGAACCTGGAACCTGGCAAACAGATCAGCAGATCTTCAGGGGAGCAGCAAAACAAAGGACGC ATAGTGTCACCATCGTTACTGTCAGAAGAACCCCTGGCCCCTCCAGCATAGATGCTGAAAGCAATGGAGAACAG CCTGAGGAGCTGACCCTGGAGGAAGAAGCCCTGTGTCTCAGCTCTTTGAGCTAGAGATTGAAGCTTTGCCCCTG GATACCCCTTCCTCTGTGGAGACGGACATTTCCTCTTCCAGGAAGCAATCAGAGGAGCCCTTCACCACTGTCTTA GAGAATGGAGCAGGCATGGTCTCTTCTACTTCCTTCAATGGAGGCGTCTCTCCTCACAACTGGGGAGATTCTGGT CCCCCTGCAAAAAATCTCGGAAGGAGAAGAAGCAAACAGGATCAGGGCCATTAGGAAACAGCTATGTGGAAAGG CAAAGGTCAGTGCATGAGAAGAATGGGAAAAAGATATGTACCCTGCCCAGCCCACCTTCCCCCTTGGCTTCCTTG GCCCCAGTTGCTGATTCCTCCACGAGGGTGGACTCTCCCAGCCATGGCCTGGTGACCAGCTCCCTCTGCATCCCT TCTCCAGCCCGGCTGTCCCAAACCCCCCATTCACAGCCTCCTCGGCCTGGTACTTGCAAGACAAGTGTGGCCACA  ${\tt CAATGCGATCCAGAAGAGATCATCGTGCTCTCAGACTCTGAT} \underline{{\tt TAA}} {\tt CTGCCTCCCCTTCTCCCTGCCTCCAGAATG}$ TTCTGGGATAACATTTGGAGGAAGGTGGGAAGCAGATGACTGAGGAAGGGATGGACTAAGCTAATCCCCTTTTGG TGGTGTTTCTTT

MATANSIIVLDDDDEDEAAAQPGPSHPLPNAASPGAEAPSSSEPHGARGSSSSGGKKCYKLENEKLFEEFLELCK
MQTADHPEVVPFLYNRQQRAHSLFLASAEFCNILSRVLSRARSRPAKLYVYINELCTVLKAHSAKKKLNLAPAAT
TSNEPSGNNPPTHLSLDPTNAENTASQSPRTRGSRRQIQRLEQLLALYVAEIRRLQEKELDLSELDDPDSAYLQE
ARLKRKLIRLFGRLCELKDCSSLTGRVIEQRIPYRGTRYPEVNRRIERLINKPGPDTFPDYGDVLRAVEKAAARH
SLGLPRQQLQLMAQDAFRDVGIRLQERRHLDLIYNFGCHLTDDYRPGVDPALSDPVLARRLRENRSLAMSRLDEV
ISKYAMLQDKSEEGERKKRRARLQGTSSHSADTPEASLDSGEGPSGMASQGCPSASRAETDDEDDEESDEEEEE
EEEEEEEATDSEEEEDLEQMQEGQEDDEEEDEEEEAAAGKDGDKSPMSSLQISNEKNLEPGKQISRSSGEQQNKG
RIVSPSLLSEEPLAPSSIDAESNGEQPEELTLEEESPVSQLFELEIEALPLDTPSSVETDISSSRKQSEEPFTTV
LENGAGMVSSTSFNGGVSPHNWGDSGPPCKKSRKEKKQTGSGPLGNSYVERQRSVHEKNGKKICTLPSPPSPLAS
LAPVADSSTRVDSPSHGLVTSSLCIPSPARLSQTPHSQPPRPGTCKTSVATQCDFEEIIVLSDSD

GGCACGAGGGCTGAGAAGAGTTTTGCACGTGGATCGCCGTTCGGGTGGGCGAG<u>ATG</u>GAGACAGCCCCCAAGCCGG GCAAGGATGTCCCGCCCAAGAAAGAAACTTCAGACCAAGAAAAAACCGCGGGCGATACTGGGAAGAAGAA CCGTTCCGACCACAGCCGGAGCCTCCTCAGGGCCTCCTCGTAACAAGAAGAATCGGGAGCTCCGTCCTCAGAGAC CAAAAAATGCTTACATCTTAAAGAAGTCTCGGATCTCTAAGAAGCCTCAGGTCCCGAAGAAACCCCGAGAATGGA AGAACCCGGAGTCCCAGCGCGGCTTGTCCGGGGCCCAAGATCCATTCCCAGGCCCCGCCCCCGTCCCTGTGGAAG TGGTCCAGAAGTTCTGTCGCATTGACAAATCCCGAAAGCTACCACATTCTAAAGCCAAAACTCGAAGCCGACTTG GGTTTCTGGAAGGGGAGGATGGGGAAGACACAGCAAAGATATGCCAGGCTGACATTGTGGAGGCTGTGGACATTG CAAGTGCAGCCAAGCACTTTGACTTGAATCTGCGGCAGTTTGGACCCTACAGACTAAACTACTCTCGAACTGGAA GACACCTGGCTTTTGGAGGGCGCCGAGGTCATGTGGCTGCCCTTGATTGGGTAACAAAGAAGCTTATGTGCGAGA GGCTCCACATCTATGACAATCAGGGCATTGAGCTCCACTGTATCCGCCGCTGTGACCGAGTAACACGGCTTGAGT AGATTGTGGCAGCTCTGAATGCTCGAGCTGGGCGGCTCGATGTTATGAGTCAGAACCCTTACAATGCCGTCATCC ATCTCGGACACAGCAATGGTACTGTGTCTTTATGGAGTCCAGCTATGAAGGAGCCACTGGCAAAGATTCTCTGTC ATCGTGGTGGGGTCCGGGCTGTGGCAGTAGATTCTACAGGCACGTACATGGCCACCTCTGGCCTAGACCACCAGC TGAAGATCTTTGACTTGCGAGGGACGTACCAGCCTCTGAGCACTCGGACCCTGCCCCATGGAGCAGGGCACCTGG  $\tt CCTTCTCCCAGAGGGGACTGCTGGTGGCGGGAATGGGTGACGTTGTCAACATCTGGGCAGGGCAGGGCAAGGCCAGGGCAAGGCCAGGGCAGGGCAAGGCCAGGGCAGGGCAAGGCCAGGGCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGGCAAGGCCAGGCCAGGGCAAGGCCAGGCCAGGGCAAGGCCAGGCCAGGGCAAGGCCAGGCCAGGCCAGGGCAAGGCCAGGCCAGGGCAAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGC$ GCCCACCCTCCCTTGAACAGCCCTACCTCACCCACCGGCTCTCAGGCCCTGTGCATGGCCTTCAGTTCTGCCCCT TTGAAGATGTGCTGGGGGTGGGGCACACTGGGGGCATCACCAGCATGCTGGTCCCTGGGGCCGGTGAGCCCAACT  ${\tt AGGTACCTGCAGAGCTTATTTGTCTGGACCCACGAGCCCTGGCCGAGGTGGATGTCATCTCCCTGGAGCAGGGAA}$ AGAAGGAGCAGATAGAGGCTGGGCTATGACCCGCAGGCTAAGGCTCCCTTCCAGCCAAAGCCAAAGCAGAAGG GCCGCAGCTCCACGGCAAGCCTGGTGAAGAGGAAGAGGAAGGTCATGGATGAGGAACACAGGGACAAGGTCCGGC AGAGCCTTCAGCAGCAGCATCATAAGGAGGCGAAGGCCAAGCCCACGGGGGCCCGGCCATCTGCCCTGGACAGAT  $\verb"TTGTGCGC" \underline{\textbf{TGA}} \texttt{GCCAGACTCCAGGGTTGCCTGGGAACAGTCTCTCCCCAAGATCACCTGTAGGGAAATGAGTGTT"$ 

METAPKPGKDVPPKKDKLQTKRKKPRRYWEEETVPTTAGASPGPPRNKKNRELRPQRPKNAYILKKSRISKKPQV
PKKPREWKNPESQRGLSGAQDPFPGPAPVPVEVVQKFCRIDKSRKLPHSKAKTRSRLEVAEAEEEETSIKAARSE
LLLAEEPGFLEGEDGEDTAKICQADIVEAVDIASAAKHFDLNLRQFGPYRLNYSRTGRHLAFGGRRGHVAALDWV
TKKLMCEINVMEAVRDIRFLHSEALLAVAQNRWLHIYDNQGIELHCIRRCDRVTRLEFLPFHFLLATASETGFLT
YLDVSVGKIVAALNARAGRLDVMSQNPYNAVIHLGHSNGTVSLWSPAMKEPLAKILCHRGGVRAVAVDSTGTYMA
TSGLDHQLKIFDLRGTYQPLSTRTLPHGAGHLAFSQRGLLVAGMGDVVNIWAGQGKASPPSLEQPYLTHRLSGPV
HGLQFCPFEDVLGVGHTGGITSMLVPGAGEPNFDGLESNPYRSRKQRQEWEVKALLEKVPAELICLDPRALAEVD
VISLEQGKKEQIERLGYDPQAKAPFQPKPKQKGRSSTASLVKRKRKVMDEEHRDKVRQSLQQQHHKEAKAKPTGA
RPSALDRFVR

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### 2113/6881 FIGURE 1946

CTCTCTTCCACAGGAGGCCTACACGCCGCCGCTTGTGCTGCAGCCATGTCTCTAGTGATCCCTGAAAAGTTCCAG
CATATTTTGCGAGTACTCAACACCAACATCGATGGGCGGCGGAAAATTAGCCTTTGCCATCACTGCCATTAAGGGT
GTGGGCCGAAGATATGCTCATGTGGTGTTGAGGAAAGCAGACATTGACCTCACCAAGAGGGCGGGAGAACTCACT
GAGGATGAGGTGGAACGTGTGATCACCATTATGCAGAATCCACGCCAGTACAAGATCCCAGACTGGTTCTTGAAC
AGACAGAAGGATGTAAAGGATGGAAAATACAGCCAGGTCCTAGCCAATGGTCTGGACAACAAGCTCCGTGAAGAC
CTGGAGCGACTGAAGAAGAATCAGGCCACTGGGCCTGCTCTCTGTGCCGAGGCCAGCAC
ACCAAGACCACTGGCCGCCGTGGCCGCACCGTGGGTGTCCAAGAAGAAA<u>TAA</u>GTCTGTAGGCCTTGTCTGTTA
ATAAATAGTTTATATACAAAAAAA

MSLVIPEKFQHILRVLNTNIDGRRKIAFAITAIKGVGRRYAHVVLRKADIDLTKRAGELTEDEVERVITIMQNPR QYKIPDWFLNRQKDVKDGKYSQVLANGLDNKLREDLERLKKIRAHRGLRHFWGLRVRGQHTKTTGRRGRTVGVSK KK

GGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTTTTTTCTCTACCATCCTTTCCAGGCCTTTTCCTCACCTAAT GAGTCGTAGAGACGAGGGCCCAGAGAGTCTGTAAAGTGGCTGGTGAAAGATTAGTGTCCCAGGGCCCTACATCCG GGAGGTGGTTCGGGATAAAGAGAACTAGTCTTGGGAACAATGTAGGTGGGAACTTAAGGGAATGGGAGAGCGGCC CATAGAGGTGGACGGAGGGCGCGATTGGAGTAAAGCGGACCCTGTGTAGGTATAGAGTTGAGTCAAGTGGAGTCA CTGCCTCTGTCCCTCTGGTCAGCGTGATGGCCAGAGGCCTGGGGGCCCCCCACTGGGTGGCCGTGGGACTGCTGA CCTGGGCGACCTTGGGGCTTCTGGTGGCTGGACTCGGGGGTCATGACGACCTGCACGACGATCTGCAAGAGGACT CTCACGAGAGCATCTGGCATGGACATACCCACGATCACGACCATGGACATTCACATGAGGATTTACACCATGGCC ATAGCCATGGCTACTCCCATGAGAGCCTCTACCACAGAGGACATGGACATGACCATGAGCATAGCCATGGAGGCT ATGGGGAGTCTGGGGCTCCAGGCATCAAGCAGGACCTGGATGCTGTCACTCTCTGGGCTTATGCACTGGGGGCCCA CAGTGCTGATCTCAGCAGCTCCATTTTTTGTCCTCTTCCTTATCCCCGTGGAGTCGAACTCTCCCCGGCATCGCT CTCTACTTCAGATCTTGCTCAGTTTTGCTTCCGGTGGGCTCCTGGGAGATGCTTTCCTGCACCTCATTCCTCATG CTCTTGAACCTCATTCTCACCACACTCTGGAGCAACCCGGACATGGACACTCCCACAGTGGCCAGGGCCCCATTC TGTCTGTGGGACTGTGGGTTCTCAGTGGAATTGTTGCCTTTCTTGTCGTGGAGAAATTTGTGAGACATGTGAAAG GAGGACATGGTCACAGTCATGGACATGGACACGCTCACAGTCATACACGTGGAAGTCATGGACATGGAAGACAAG AGCGTTCTACCAAGGAGAAGCAGAGCTCAGAGGAAGAAGAAAAAAGAAACAAGAGGGGTTCAGAAGAGGCGAGGAG TGTCGGGGTACCTGAATCTGGCTGCTGACTTGGCACACAACTTCACTGATGGTCTGGCCATTGGGGCTTCCTTTC GAGGGGGCCGGGGACTAGGGATCCTGACCACAATGACTGTCCTGCTACATGAAGTGCCCCACGAGGTCGGAGACT TTGCCATCTTGGTCCAGTCTGGCTGCAGCAAAAAGCAGGCGATGCGTCTGCAACTACTGACAGCAGTAGGGGCAC TGGCAGGCACAGCCTGTGCCCTTCTCACTGAAGGAGGAGCAGTGGGCAGTGAAATTGCAGGTGGTGCAGGTCCTG GCTGGGTCCTGCCATTTACTGCAGGTGGCTTTATCTACGTAGCAACAGTGTCTGTTGCCCCGAGCTGCTGAGGG ACCTTGAGTGAGGGGTGGATAAACTACCCCTGCCCCAAACCTCTACCCCTAACTCCAGGTCAGGGGTGCGTAGAG GCCTTCAAGGGCTGGCAGTCTTACAGAGGCTGGAGCGGTGAGAATGAGAGGCCAGAGGGACCATAGTGTTGGGCA CTGTCTGACCATGTTGCATTTGGAAGGCTAAATGGGGCCATGAAGAAGGCTGGAAGGGACAGGGGGTGATGGCAG CCTACCTGGTGTCCCCTACCCCACCTGTTCTCGGAGAACCAAGTTGCTACACAGGAAGTTCTCCAAGGTCCAGTT TCCTTTCTCCCACCAGTTGGTGGAGGCTTCAGGGAAGACCAGAGTCCTGGACAGAGAGGGTAACAGGAGGAGTCG GGGATAAACATCAAACATCAATCGTGTGTCCTGATTTGGGAGTGATTGGGGGGATGGGGTGGGAGAGGGTTAGTT GGTATTCTCATGGCCTGATTTTTTTTTTTTTCTATTCCTTTTATATCACTGTGTTTGAATCGAGGGGGAGGGTGG TAACCGGAAATAAAGACCTCCGATCTTCCGCCCC

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#### 2116/6881 FIGURE 1949

GCTCACAGTCATCAATTATAGACCCCACAACATGCGCCCTGAAGACAGAATGTTCCATATCAGAGCTGTGATCTT GAGAGCCCTCTCCTTGGCTTTCCTGCTGAGTCTCCGAGGAGCTGGGGCCCATCAAGGCGGACCATGTGTCAACTTA TGCCGCGTTTGTACAGACGCATAGACCAACAGGGGAGTTTATGTTTGAATTTGATGAAGATGAGATGTTCTATGT GGATCTGGACAAGAAGGAGACCGTCTGGCATCTGGAGGAGTTTGGCCAAGCCTTTTCCTTTGAGGCTCAGGGCGG GCTGGCTAACATTGCTATATTGAACAACAACTTGAATACCTTGATCCAGCGTTCCAACCACACTCAGGCCACCAA CGATCCCCTGAGGTGACCGTGTTTCCCAAGGAGCCTGTGGAGCTGGGCCCAACACCCTCATCTGCCACAT TGACAAGTTCTTCCCACCAGTGCTCAACGTCACGTGGCTGTGCAACGGGGAGCTGGTCACTGAGGGTGTCGCTGA GAGCCTCTTCCTGCCCAGAACAGATTACAGCTTCCACAAGTTCCATTACCTGACCTTTGTGCCCTCAGCAGAGGA CTTCTATGACTGCAGGGTGGAGCACTGGGGCTTGGACCAGCCGCTCCTCAAGCACTGGGAGGCCCAAGAGCCAAT CCAGATGCCTGAGACAACGGAGACTGTGCTCTGTGCCCTGGGCCTGGTGCTGGGCCTAGTCGGCATCATCGTGGG  $\texttt{CACCGTCCTCATCATAAAGTCTCTGCGTTCTGGCCATGACCCCCGGGCCCAGGGGACCCTG} \underline{\textbf{TGA}} \texttt{AATACTGTAAA}$ GGTGACAAAATATCTGAACAGAAGAGGACTTAGGAGAGATCTGAACTCCAGCTGCCCTACAAACTCCATCTCAGC ATTACCTCAAAGCAGTCATTCCTTAGTAAAGTTTCCAACAAATAGAAATTAATGACACTTTGGTAGCACTAATAT GGAGATTATCCTTTCATTGAGCCTTTTATCCTCTGTTCTCCTTTGAAGAACCCCTCACTGTCACCTTCCCGAGAA TACCCTAAGACCAATAAATACTTCAGTATTTC

MRPEDRMFHIRAVILRALSLAFLLSLRGAGAIKADHVSTYAAFVQTHRPTGEFMFEFDEDEMFYVDLDKKETVWH LEEFGQAFSFEAQGGLANIAILNNNLNTLIQRSNHTQATNDPPEVTVFPKEPVELGQPNTLICHIDKFFPPVLNV TWLCNGELVTEGVAESLFLPRTDYSFHKFHYLTFVPSAEDFYDCRVEHWGLDQPLLKHWEAQEPIQMPETTETVL CALGLVLGLVGIIVGTVLIIKSLRSGHDPRAQGTL

# FIGURE 1951A

GGACTGCGGGATAGGAAGCTGGGGATATGGACAAGCAGCGCTTATAGCGCTCTGGGTTTCGGGACATAGGCCT GGGCCATGCGGCCCCTTGGCCCCTTGGCGCGACCCCCAGGAACGTTCGGAAAGCTGGTCCTCGTGGCTGGGGGAA GCTTCGTTTTCTGGGGGGGGGTTGACACCCCGGATTACATACCCCGTACCAAGCCGAGGGCAACTTTGGAGGCCC CCTGGAAGGCTTTAGGATCCAGATTCTTCGCTGCTGCTGCCTTACCGCCGAGAACCACCACCCGCCAGGCGTCTT GCGGCCACACCCCTGGCGGGTTCAGGCAGGCTACGCCCACGCGACCCCTCCCGTTTCCCTGCTTTGGCCAATGGA GGAGCTACGAATGGCACGACCTGCTCGAGCTTGGCAGTCTCCAGTTGGGCTGTGCATGGAAGCTTGGGAAGACTT TGTTGGAAGGGGAGGGGGGAGAGAGTGCTGGAGGCTCTGGGGGCGATGGCTTCCGCACCTCTTCCAACCACCCTC TTTCCCTGGAGTCGGCGGACCACAGCTCAGCCAATTGGCTTGGAGATGTGGCGGGTTGCCACTTCCCTGTGGGTC TCTGCGGCACTCTTCTGCCTGGTGACTGACACCTTGGAAATGAAGTTTATGACGTCATCGTTGCGGCTGGCCAAT AAGGGCTGGCGCGGGGCTCGGCGGCGCCATTTCGTGCTGGAGTGGAGCAGCCTCTAGAACGAGCTGGAGGATTCT GCCTACCGATACAGAGCCTTCGAGTCGTCCGGGGCCGCCATTACAATCCACCTCCATCCGCTTGGAAATGGCCTT CGTCCCGGCCTATGACTGGTCCCAGCGGGCAGTACAGACCCCCTAGAAGCCCCTGGAGCTCCCCTTTTTCGGGCC CCGCCCAATCCTCGGAGTCTGTCCACCCCCTCTACTCCGCCCTCAAGAGGATTTCAAAGATGGAGGCGGCGGCTC CCTAAACCACTTTTCGTGTTCATCCGCCTCCATCCGAGATCGAAACGGGACCTCGTCGGCCCCGTAGGGGCCCCGA CAAGAAGAGGGAATCCCTGCAGACCAACAGCGGGCTATATTGACGACGGTGTCTGAGATCGGGGACCGTCTTTTG AAGAGTCAGTCCCTCCTTAGTTGCCCGCCTCAGCTGAGGCCGCCGCCATTTTCTTGCTGTCCGCCGTCTGCAGAG GCCTGGAGGCCCAAGAGGAACGGCCTCCCCCAACTTAGCGGGTTATGCTGGACCGGGCGGTGAGGGGAACCGAG GCCACCCGGACTTTCCGCGGCTGAGGGCAGCGCCGGTTCCTTGCGGTCAAGATGCTGCAAAACGTGACTCCCCAC AATAAGCTCCCTGGGGAAGGGAATGCAGGGTTGCTGGGGCTGGGCCCAGAAGCAGCAGCACCAGGGAAAAGGATT CGAAAACCCTCTCTTGTATGAGGGCTTTGAGAGCCCCACAATGGCTTCGGTGCCTGCTTTGCAACTTACCCCT AAGGTAGTGATGAAGGCTCTGTGGAAACATCAGTTCGCATGGCCATTCCGGCAGCCTGTGGATGCTGTCAAACTG GGTCTACCGGATTATCACAAAATTATAAAACAGCCTATGGACATGGGTACTATTAAGAGGAGACTTGAAAACAAT TATTATTGGGCTGCTTCAGAGTGTATGCAAGATTTTAATACCATGTTCACCAACTGTTACATTTACAACAAGCCC ACTGATGATATTGTCCTAATGGCACAAACGCTGGAAAAGATATTCCTACAGAAGGTTGCATCAATGCCACAAGAA GAACAAGAGCTGGTAGTGACCATCCCTAAGAACAGCCACAAGAAGGGGGCCCAAGTTGGCAGCGCTCCAGGGCAGT CCTACCACTGTCTTCAACATTCCCCACCCATCAGTCATTTCCTCTCCACTTCTCAAGTCCTTGCACTCTGCTGGA GATACTACCACCCTACACCTACAGCCATCTTGGCTCCTGGTTCTCCAGCTAGCCCTCCTGGGAGTCTTGAGCCT AAGGCAGCACGGCTTCCCCCTATGCGTAGAGAGTGGTCGCCCCATCAAGCCCCCACGCAAAGACTTGCCTGAC TCTCAGCAACAACACCAGAGCTCTAAGAAAGGAAAGCTTTCAGAACAGTTAAAACATTGCAATGGCATTTTGAAG GAGTTACTCTCTAAGAAGCATGCTGCCTATGCTTGGCCTTTCTATAAACCAGTGGATGCTTCTGCACTTGGCCTG CATGACTACCATGACATCATTAAGCACCCCATGGACCTCAGCACTGTCAAGCGGAAGATGGAGAACCGTGATTAC CGGGATGCACAGGAGTTTGCTGCTGATGTACGGCTTATGTTCTCCAACTGCTATAAGTACAATCCCCCAGATCAC GATGTTGTGGCAATGGCACGAAGCTACAGGATGTATTTGAGTTCCGTTATGCCAAGATGCCAGATGAACCACTA GAACCAGGGCCTTTACCAGTCTCTACTGCCATGCCCCTGGCTTGGCCAAATCGTCTTCAGAGTCCTCCAGTGAG GAAAGTAGCAGTGAGAGCTCCTCTGAGGAAGAGGAGGAGGAAGATGAGGAGGACGAGGAGGAAGAAGAGTGAA AGCTCAGACTCAGAGGAAGAAGGGCTCATCGCTTAGCAGAACTACAGGAACAGCTTCGGGCAGTACATGAACAA AAGGCAGAAGCATCGAGGCCGAGCTGGGGCCGATGAAGATGACAAGGGGCCTAGGGCACCCCGCCCACCTCAA GGAGGAAGTGGCACCAAGCTCCCCAAAAAGGCCACAAAGACAGCCCCACCTGCCCTACAGGTTATGATTCA

#### 2119/6881 FIGURE 1951B

GGGCAGAAAGGGCACGCTCTTGTGGGTGACTACAGGTTAGGAGACCGTTGAACCTGGAGGGGCCCTAGGATGGAC CCCGTGGAAAGATTCAGAGACTGCGCCCTCTCCCTGGCGCCGCCTTCCCCTACACGCGGGGGGTATATTCTGTTG  ${\tt CAGTTGGCCCAGGACCTGTTTCCAAGACTCTGCCCCCTCGCACTTCCGTCCCTCGTTTTGTAAAGTG} \underline{{\tt ATG}}{\tt CT}$ CATAGGAACCCCCACCCGCGTGACACTACTCCCAGCTCCTGGCTGACTTCTAGTCTTCTGGTTGAAGCTGCGCC TTTAGATGACACGACCCTACCCACCCTGTTTCCAGCGGATGCCCGGGCCTGGAGCCCACAGAATTCTTCCAGTC CCTGGGTGGGGACGAAAAGGAACGTTCAGATTGAGATGGCCCATGGCACCACCACGCTCGCCTTCAAGTTCCA GCATGGAGTGATTGCAGCAGTGGATTCTCGGGCCTCAGCTGGGTCCTACATTAGTGCCTTACGGGTGAACAAGGT GATTGAGATTAACCCTTACCTGCTTGGCACCATGTCTGGCTGTGCAGCAGACTGTCAGTACTGGGAGCGCCTGCT GGCCAAGGAATGCAGGCTGTACTATCTGCGAAATGGAGAACGTATTTCAGTGTCGGCAGCCTCCAAGCTGCTGTC TGGACTCTACTACGTGGATGAACATGGGACTCGGCTCTCAGGAAATATGTTCTCCACGGGTAGTGGGAACACTTA TGCCTACGGTGTCATGGACAGTGGCTATCGGCCTAATCTTAGCCCTGAAGAGGCCTATGACCTTGGCCGCAGGGC  ${\tt GGTGAAAGTAGAAAGTACAGATGTCAGTGACCTGCTGCACCAGTACCGGGAAGCCAATCAA} {\tt TAA} {\tt TGGTGGTGGTG}$ GCAGCTGGGCAGGTCTCCTCTGGGAGGTCTTGGCCGACTCAGGGACCTAAGCCACGTTAAGTCCAAGGAGAAGAA GAGGCCTAGCCTGAGCCAAAGAGAGAGTACGGGCTCAGCAGCCAGAGGAGGCCGGTGAAGTGCATCTTCTGCGTG TTCTC

MLIGTPTPRDTTPSSWLTSSLLVEAAPLDDTTLPTPVSSGCPGLEPTEFFQSLGGDGERNVQIEMAHGTTTLAFK FQHGVIAAVDSRASAGSYISALRVNKVIEINPYLLGTMSGCAADCQYWERLLAKECRLYYLRNGERISVSAASKL LSNMMCQYRGMGLSMGSMICGWDKKGPGLYYVDEHGTRLSGNMFSTGSGNTYAYGVMDSGYRPNLSPEEAYDLGR RAIAYATHRDSYSGGVVNMYHMKEDGWVKVESTDVSDLLHQYREANQ

WO 2004/030615 PCT/US2003/028547

### FIGURE 1954

ATTCTTGTCTGTCTGCCTCACTCCCGAGCTCTACTGACTCCCAACAGAGCGCCCCAAGAAGAAAATGGCCATAAG TGGAGTCCCTGTGCTAGGATTTTTCATCATAGCTGTGCTGATGAGCGCTCAGGAATCATGGGCTATCAAAGAAGA ACATGTGATCATCCAGGCCGAGTTCTATCTGAATCCTGACCAATCAGGCGAGTTTATGTTTGACTTTGATGGTGA TGAGATTTTCCATGTGGATATGGCAAAGAAGGAGACGGTCTGGCGGCTTGAAGAATTTGGACGATTTGCCAGCTT TGAGGCTCAAGGTGCATTGGCCAACATAGCTGTGGACAAAGCCAACCTGGAAATCATGACAAAGCGCTCCAACTA TACTCCGATCACCAATGTACCTCCAGAGGTAACTGTGCTCACGAACAGCCCTGTGGAACTGAGAGAGCCCAACGT CCTCATCTGTTTCATAGACAAGTTCACCCCACCAGTGGTCAATGTCACGTGGCTTCGAAATGGAAAACCTGTCAC CACAGGAGTGTCAGAGACAGTCTTCCTGCCCAGGGAAGACCACCTTTTCCGCAAGTTCCACTATCTCCCCTTCCT GCCCTCAACTGAGGACGTTTACGACTGCAGGGTGGAGCACTGGGGCTTGGATGAGCCTCTTCTCAAGCACTGGGA GTTTGATGCTCCAAGCCCTCTCCCAGAGACTACAGAGAACGTGGTGTGTGCCCTGGGCCTGACTGTGGGTCTGGT GGGCATCATTATTGGGACCATCTTCATCATCAAGGGATTGCGCAAAAGCAATGCAGCAGAACGCAGGGGGCCTCT GTAAGGCACATGGAGGTGATGGTGTTTCTTAGAGAGAAGATCACTGAAGAAACTTCTGCTTTAATGGCTTTACAA AGCTGGCAATATTACAATCCTTGACCTCAGTGAAAGCAGTCATCTTCAGCATTTTCCAGCCCTATAGCCACCCCA AGAGTGGTTATGCCTCCTCGATTGCTCCATACTCTAACATCTAGCTGGCTTCCCTGTCTATTGCCTTTTCCTGTA TCTATTTCCTCTATTCCTATCATTTTATTATCACCATGCAATGCCTCTGGAATAAAACATACAGGAGTCTGTC TCTGCTATGGAATGCCCCATGGGGCATCTCTTGTGTACTTATTGTTTAAGGTTTCCTCAAACTGTGATTTTTCTG AACACAATAAACTATTTTGAAGATCTTGGGTGGAA

GCCGTCTTATCTAAGTCAGAGTCTCCTAAAGAGCCAGAACAACTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTT GAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAGTGAGGGACACTCCCGGACAGTGTGGTCATGAGAGAT CCAAACCCAAGCGCTCCAGGGGCTTTGGATTTTTCACATATGCCACTGTGGAGGAGGTGGATGCAGCCGTGAATG CAAGGCCACAAGGTGGATGGAAGAGCTGTGGAACCAAAGAGAGCTGTCTCAAGAGAAGATTCTCAAATACCAG GTGCCCACTTAACTGTGAAAAAGATATATGCTGGTGGCATTAAAGAAGACACTGAAGAAATCACCTAAGAAATTA CTTTGTAACCTTTGATGACCATGACTCCGTGGATAAGACTGTCATTCAGAAATACCACAGTGTGAATGGCCACAA GGAAACTTTGGTGGTGGTCATGGAGGTGGTTTCGGTGGGAATGACAACTTTGATCATGGAGGAAACTTCAGTGGT TGTGGTAGCTTTGGTGGCAGCTGTGGTGGTGGTGGATATGGTGGCAGTGAGGATGGCTATAATGGATTTGGTAAT GATGGGAGCAATTTTGGAGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTTGGA CCCATGAAGGGAGGAAACTTTGGAGGCAGAAGCTGTGGCCTCTATGGTGGTGGAGGCCAATACTTTGCCAAACCA TGAAACCAAAGTGGCTATTGTGGTTCCAGTAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTTTAATTAGGAAAC AAAGCTTAGCAGGAGAGGAGAGCCAGAGAAGTGACAGGGAAGCTACAGGTTACAACAGATTTGTGAACTCAGCCA AGCACAGTGGTGGCAGGGCCTAGCTGGTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAA ACTCGAGGACTGTATTTGTGACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATT CCAACAAAGGGTTTTAATGTAGATTTTTTTTTGCACCCATGCTGTTTATTGCTAAATGTAATAGTCTGATCGTGA CACTGAAAAAA

ATGGACGAACGGCTACTGGGGCCGCCCCCCCCAGGCGGGGGCCCGGGGGGGCCTGGGATTGGTGAGTGGGGAGCCT GGGGCCCTGGCGAGCCTCCCGGTGGCGGAGACCCCGGTGGGGGTAGCGGGGGGGTCCCGGGAGGCCGAGGGAAG CAAGACATCGGGGACATTCTGCAGCAGATAATGACCATCACCGACCAGAGCCTGGACGAGGCCCAGGCCAAGAAA CACGCCCTAAACTGCCACCGAATGAAGCCTGCTCTCTTTAGCGTCCTGTGTGAAATCAAGGAGAAAACTGGCCTC AGCATTCGGAGCTCCCAGGAGGAGGAGCÇGGTGGACCCACAGCTGATGCGCTTGGACAACATGCTTCTGGCAGAG GGTGTGGCTGGGCCCGAGAAAGGGGGCGGCTCAGCAGCAGCAGCTGCAGCCTCTGGTGGTGGTGTG TCCCCTGACAACTCCATCGAACACTCGGACTATCGCAGCAAACTTGCCCAGATCCGTCACATATACCACTCGGAG CTGGAGAAGTATGAGCAGGCATGTAATGAGTTCACGACCCATGTCATGAACCTGCTGAGGGAGCAGAGCCGCACC CTGAAGCAGAGCACCTGCGAGGCTGTGATGATCCTGCGCTCCCGTTTCCTGGATGCCAGACGAAAGCGCCGTAAC TTCAGCAAACAGGCCACTGAGGTCCTAAATGAGTATTTCTACTCCCACCTGAGTAACCCATATCCTAGTGAGGAG GCCAAGGAGGAGCTTGCCAAGAAGTGTGGCATCACCGTGTCTCAGGTCTCCAACTGGTTTGGCAACAAGAGGATT CAGGGGGGCCACAGCCCAGCTCCCCGACACCCCCTTCCTCTGCAGGCTCTGGCGGCTCTTTCAATCTCTCA GGATCTGGAGACATGTTTCTGGGGATGCCTGGGCTCAACGGAGATTCCTATTCTGCTTCCCAGGTGGAATCACTC CGACACTCGATGGGGCCAGGGGGCTATGGGGATAACCTCGGGGGAGGCCAGATGTACAGCCCACGGGAAATGAGG GCAAATGGCAGCTGGCAAGAGGCTGTGACCCCCTCTTCAGTGACATCCCCAACGGAGGGACCAGGGAGTGTTCAC TCTGATACCTCCAACTGATCTTGCCCCTCAGGGTCACAGGGGTGGGGGCTCTCACAAGGCGACTTGAAGAGGACG AACGAGACTCTCTGTGCTGGGGGTGCTAATTACATGGCAGGAAGAATGGGGCCTCTAAGGGGAGTGTGGGGTCTG AACTATTCTGTTTCTCCTGGGCTCCCCACTTTCCCTTCCCCACCCCACTTGTATGCTCTGGAATCTGTGGAG ACGCCAGCCCTGCCCAATCAGAGATGCCAAAAATGGGGACATGACTTCTGGACAGAGGACATGGGCCACGCCCCC ATGCATCCCCACCCCCGCCCCTCCGGACGGCTTACTTACCTCATACGCAGCTCATCTTAAACCAATAGAATCGCT TGTTGTTTTTGTTGTTGGTGGTGGTGGTGGTGGTTGTTTAATTTTTAATTTAGTTTGGGGAAGTAGCTTG CAAAGGGGTTCTGGTAAGAGAAAGGGGGGACAAACAGAACTGGTAAAGAGGCCCCCCTGGCTCCAGGCCTGTCCAT TTTCTGCCGCATTTGATGTGGAGGCAGTGAAGGGCTTGCCCTGCTGGCCTCTCATCCCCCTTCTTCCCACAACCC TTTTTAAAAAACTACTATTTGAAAATTGGAGGGGGAAGAATGGGAAGGGAGTTATTGCCAAATATGTTAAATATG GGTTGGGGTGCTTGTATATGTATCTTCCTCAATTTCCCCATAAATGAGGTATCTTTTTGTCACACCAAAATCAAG GGGTAGGGAGGGGGGGGGGAAAAGCCAGATGTGGGGGGAAAAGTAACATCAACACTGTCCCATCCTCAGC CCTGAACTAGCTACCATCTGATCCCCTCAGACATTCTCAGGATTTTACAAGACTGTCAGAGTGGGGAACCCCTCC CTTTTT

### 2125/6881 FIGURE 1957A

AGAAGGTAGCAGACAGACAGACGGATCTAACCTCTCTTGGATCCTCCAGCCATGAGGCTGCTCTGGGGGCTGATC GGGGTCCCCCTATCGGTGGGGGTGCAGCTCCAGGATGTGCCCCGAGGACAGGTAGTGAAAGGATCAGTGTTCCTG AGAAACCCATCTCGTAATAATGTCCCCTGCTCCCCAAAGGTGGACTTCACCCTTAGCTCAGAAAGAGACTTCGCA  $\verb|CTCCTCAGTCTCCAGGTGCCCTTGAAAGATGCGAAGAGCTGTGGCCTCCATCAACTCCTCAGAGGCCCTGAGGTC| \\$ · CAGCTGGTGGCCCATTCGCCATGGCTAAAGGACTCTCTGTCCAGAACGACAAACATCCAGGGTATCAACCTGCTC TTCTCCTCTCGCCGGGGGCACCTCTTTTTGCAGACGGACCAGCCCATTTACAACCCTGGCCAGCGGGTTCGGTAC CGGGTCTTTGCTCTGGATCAGAAGATGCGCCCGAGCACTGACACCATCACAGTCATGGTGGAGAACTCTCACGGC CTCCGCGTGCGGAAGAAGGAGGTGTACATGCCCTCGTCCATCTTCCAGGATGACTTTGTGATCCCAGACATCTCA GAGCCAGGGACCTGGAAGATCTCAGCCCGATTCTCAGATGGCCTGGAATCCAACAGCAGCACCCAGTTTGAGGTG AAGAAATATGTCCTTCCCAACTTTGAGGTGAAGATCACCCCTGGAAAGCCCTACATCCTGACGGTGCCAGGCCAT CTTGATGAAATGCAGTTAGACATCCAGGCCAGGTACATCTATGGGAAGCCAGTGCAGGGGGTGGCATATGTGCGC CAGAGCCACATTTCCCTCTCAAAGGCAGAGTTCCAGGACGCCCTGGAGAAGCTGAATATGGGCATTACTGACCTC  ${\tt CAGGGGCTGCGCCTCTACGTTGCTGCAGCCATCATTGAGTATCCAGGTGGGGAGATGGAGGGGAGGCAGAGCTCACA}$ TCCTGGTATTTTGTGTCATCTCCCTTCTCCTTGGATCTTAGCAAGACCAAGCGACACCTTGTGCCTGGGGCCCCC TTCCTGCTGCAGGCCTTGGTCCGTGAGATGTCAGGCTCCCCAGCTTCTGGCATTCCTGTCAAAGTTTCTGCCACG GTGTCTTCTCCTGGGTCTGTTCCTGAAGTCCAGGACATTCAGCAAAACACAGACGGGAGCGGCCAAGTCAGCATT CCAATAATTATCCCTCAGACCATCTCAGAGCTGCAGCTCTCAGTATCTGCAGGCTCCCCACATCCAGCGATAGCC AGGCTCACTGTGGCAGCCCCACCTTCAGGAGGCCCCGGGTTTCTGTCTATTGAGCGGCCGGATTCTCGACCTCCT CGTGTTGGGGACACTCTGAACCTGAACTTGCGAGCCGTGGGCAGTGGGGCCACCTTTTCTCATTACTACTACATG ATCCTATCCCGAGGGCAGATCGTGTTCATGAATCGAGAGCCCAAGAGGACCCTGACCTCGGTCTCGGTGTTTGTG GACCATCACCTGGCACCCTCCTTCTACTTTGTGGCCTTCTACTACCATGGAGACCACCCAGTGGCCAACTCCCTG CGAGTGGATGTCCAGGCTGGGGCCTGCGAGGGCAAGCTGGAGCTCAGCGTGGACGGTGCCAAGCAGTACCGGAAC GGGGAGTCCGTGAAGCTCCACTTAGAAACCGACTCCCTAGCCCTGGTGGCGCTGGGAGCCTTGGACACAGCTCTG TATGCTGCAGGCAGCCAGAGCCCCTCAACATGGGCAAGGTCTTTGAAGCTATGAACAGCTATGACCTC GGCTGTGGTCCTGGGGGTGGGGACAGTGCCCTTCAGGTGTTCCAGGCAGCGGGCCTGGCCTTTTCTGATGGAGAC CAGTGGACCTTATCCAGAAAGAGACTAAGCTGTCCCAAGGAGAAGACAACCCGGAAAAAGAGAAACGTGAACTTC CAAAAGGCGATTAATGAGAAATTGGGTCAGTATGCTTCCCCGACAGCCAAGCGCTGCCGGGATGGGGTGACA CGTCTGCCCATGATGCGTTCCTGCGAGCAGCCGGGCAGCCCGCGTGCAGCAGCCGGACTGCCGGGAGCCCTTCCTG TCCTGCTGCCAATTTGCTGAGAGTCTGCGCAAGAAGAGCAGGGACAAGGGCCAGGCGGGCCTCCAACGAGCCCTG GAGATCCTGCAGGAGGAGCACCTGATTGATGAGGATGACATTCCCGTGCGCAGCTTCTTCCCAGAGAACTGGCTC TGGAGAGTGGAAACAGTGGACCGCTTTCAAATATTGACACTGTGGCTCCCCGACTCTCTGACCACGTGGGAGATC CATGGCCTGAGCCTGTCCAAAACCAAAGGCCTATGTGTGGCCACCCCAGTCCAGCTCCGGGTGTTCCGCGAGTTC CACCTGCACCTCCGCCGATGTCTGTCCGCCGCTTTGAGCAGCTGGAGCTGCGGCCTGTCCTCTATAACTAC GTGTCTCTGAAGGTGGTGGCTCGAGGGTCCTTCGAATTCCCTGTGGGAGATGCGGTGTCCAAGGTTCTGCAGATT GAGAAGGAAGGGCCATCCATAGAGAGGAGCTGGTCTATGAACTCAACCCCTTGGACCACCGAGGCCGGACCTTG GAAATACCTGGCAACTCTGATCCCAATATGATCCCTGATGGGGACTTTAACAGCTACGTCAGGGTTACAGCCTCA GATCCATTGGACACTTTAGGCTCTGAGGGGGCCTTGTCACCAGGAGGCGTGGCCTCCTCTTGAGGCTTCCTCGA GGCTGTGGGGAGCAAACCATGATCTACTTGGCTCCGACACTGGCTGCTTCCCGCTACCTGGACAAGACAGAGCAG TGGAGCACACTGCCTCCCGAGACCAAGGACCACGCCGTGGATCTGATCCAGAAAGGCTACATGCGGATCCAGCAG TTTCGGAAGGCGGATGGTTCCTATGCGGCTTGGTTGTCACGGGGCAGCACCTGGCTCACAGCCTTTGTGTTG AAGGTCCTGAGTTTGGCCCAGGAGCAGGTAGGAGGATCGCCTGAGAAACTGCAGGAGACATCTAACTGGCTTCTG TCCCAGCAGCAGGCTGACGGCTCGTTCCAGGACCTCTCTCCAGTGATACATAGGAGCATGCAGGGGGGTTTGGTG GGCAATGATGAGACTGTGGCACTCACAGCCTTTGTGACCATCGCCCTTCATCATGGGCTGGCCGTCTTCCAGGAT GAGGGTGCAGAGCCATTGAAGCAGAGAGTGGAAGCCTCCATCTCAAAGGCAAGCTCATTTTTGGGGGAGAAAGCA

#### 2126/6881 FIGURE 1957B

AGTGCTGGGCTCCTGGGTGCCCACGCAGCTGCCATCACGGCCTATGCCCTGACACTGACCAAGGCCCCTGCGGAC CTGCGGGGTGTTGCCCACAACAACCTCATGGCAATGGCCCAGGAGACTGGAGATAACCTGTACTGGGGCTCAGTC ACTGGTTCTCAGAGCAATGCCGTGTCGCCCACCCCGGCTCCTCGCAACCCATCCGACCCCATGCCCCAGGCCCCA GCCCTGTGGATTGAAACCACAGCCTACGCCCTGCTGCACCTCCTGCTTCACGAGGGCAAAGCAGAGATGGCAGAC CAGGCTGCGGCCTGGCTCACCCGTCAGGGCAGCTTCCAAGGGGGGATTCCGCAGTACCCAAGACACGGTGATTGCC CTGGATGCCCTGTCTGCCTACTGGATTGCCTCCCACACCACTGAGGAGGGGGTCTCAATGTGACTCTCAGCTCC ACAGGCCGGAATGGGTTCAAGTCCCACGCGCTGCAGCTGAACAACCGCCAGATTCGCGGCCTGGAGGAGGAGCTG CAGTTTTCCTTGGGCAGCAAGATCAATGTGAAGGTGGGAGGAAACAGCAAAGGAACCCTGAAGGTCCTTCGTACC TACAATGTCCTGGACATGAAGAACACGACCTGCCAGGACCTACAGATAGAAGTGACAGTCAAAGGCCACGTCGAG TACACGATGGAAGCAAACGAGGACTATGAGGACTATGAGTACGATGAGCTTCCAGCCAAGGATGACCCAGATGCC GTGGAGGAGCAGGAGTCCAGGGTGCACTACACCGTGTGCATCTGGCGGAACGGCAAGGTGGGGCTGTCTGGCATG GACCGTTACGTGAGTCACTTTGAGACCGAGGGGCCCCACGTCCTGCTGTATTTTGACTCGGTCCCCACCTCCCGG GAGTGCGTGGGCTTTGAGGCTGTGCAGGAAGTGCCGGTGGGGGCTGGTGCAGCCGGCCAGCCCAACCCTGTACGAC TACTACAACCCCGAGCGCAGATGTTCTGTGTTTTACGGGGCACCAAGTAAGAGCAGACTCTTGGCCACCTTGTGT TCTGCTGAAGTCTGCCAGTGTGCTGAGGGGAAGTGCCCTCGCCAGCGTCGCGCCCTGGAGCGGGGTCTGCAGGAC GAGGATGGCTACAGGATGAAGTTTGCCTGCTACTACCCCCGTGTGGAGTACGGCTTCCAGGTTAAGGTTCTCCGA GAAGACAGCAGAGCTGCTTTCCGCCTCTTTGAGACCAAGATCACCCAAGTCCTGCACTTCACCAAGGATGTCAAG GCCGCTGCTAATCAGATGCGCAACTTCCTGGTTCGAGCCTCCTGCCGCCTTCGCTTGGAACCTGGGAAAGAATAT TTGATCATGGGTCTGGATGGGGCCACCTATGACCTCGAGGGACACCCCCAGTACCTGCTGGACTCGAATAGCTGG ATCGAGGAGATGCCCTCTGAACGCCTGTGCCGGAGCACCCGCCAGCGGGCAGCCTGTGCCCAGCTCAACGACTTC GGGAACCATGAAGCTGGAAGCACTGCTGTGTCCGCTTTCATGAACACAGCCTGGGACCAGGGCATATTAAAGGCT TTTGGCAGCAAAGTGTCAGTGTTGGC

### FIGURE 1958

MRLLWGLIWASSFFTLSLQKPRLLLFSPSVVHLGVPLSVGVQLQDVPRGQVVKGSVFLRNPSRNNVPCSPKVDFT LSSERDFALLSLQVPLKDAKSCGLHQLLRGPEVQLVAHSPWLKDSLSRTTNIQGINLLFSSRRGHLFLQTDQPIY NPGQRVRYRVFALDQKMRPSTDTITVMVENSHGLRVRKKEVYMPSSIFQDDFVIPDISEPGTWKISARFSDGLES NSSTQFEVKKYVLPNFEVKITPGKPYILTVPGHLDEMQLDIQARYIYGKPVQGVAYVRFGLLDEDGKKTFFRGLE SQTKLVNGQSHISLSKAEFQDALEKLNMGITDLQGLRLYVAAAIIEYPGGEMEEAELTSWYFVSSPFSLDLSKTK RHLVPGAPFLLQALVREMSGSPASGIPVKVSATVSSPGSVPEVQDIQQNTDGSGQVSIPIIIPQTISELQLSVSA GSPHPAIARLTVAAPPSGGPGFLSIERPDSRPPRVGDTLNLNLRAVGSGATFSHYYYMILSRGQIVFMNREPKRT LTSVSVFVDHHLAPSFYFVAFYYHGDHPVANSLRVDVQAGACEGKLELSVDGAKQYRNGESVKLHLETDSLALVA LGALDTALYAAGSKSHKPLNMGKVFEAMNSYDLGCGPGGGDSALQVFQAAGLAFSDGDQWTLSRKRLSCPKEKTT RKKRNVNFQKAINEKLGQYASPTAKRCCQDGVTRLPMMRSCEQRAARVQQPDCREPFLSCCQFAESLRKKSRDKG QAGLQRALEILQEEDLIDEDDIPVRSFFPENWLWRVETVDRFQILTLWLPDSLTTWEIHGLSLSKTKGLCVATPV QLRVFREFHLHLRLPMSVRRFEQLELRPVLYNYLDKNLTVSVHVSPVEGLCLAGGGGLAQQVLVPAGSARPVAFS VVPTAAAAVSLKVVARGSFEFPVGDAVSKVLQIEKEGAIHREELVYELNPLDHRGRTLEIPGNSDPNMIPDGDFN  ${\tt SYVRVTASDPLDTLGSEGALSPGGVASLLRLPRGCGEQTMIYLAPTLAASRYLDKTEQWSTLPPETKDHAVDLIQ}$ KGYMRIQQFRKADGSYAAWLSRGSSTWLTAFVLKVLSLAQEQVGGSPEKLQETSNWLLSQQQADGSFQDLSPVIH  ${\tt RSMQGGLVGNDETVALTAFVTIALHHGLAVFQDEGAEPLKQRVEASISKASSFLGEKASAGLLGAHAAAITAYAL}$ TLTKAPADLRGVAHNNLMAMAQETGDNLYWGSVTGSQSNAVSPTPAPRNPSDPMPQAPALWIETTAYALLHLLLH  ${\tt EGKAEMADQAAAWLTRQGSFQGGFRSTQDTVIALDALSAYWIASHTTEERGLNVTLSSTGRNGFKSHALQLNNRQ}$  ${\tt IRGLEEELQFSLGSKINVKVGGNSKGTLKVLRTYNVLDMKNTTCQDLQIEVTVKGHVEYTMEANEDYEDYEYDEL}$  ${\tt PAKDDPDAPLQPVTPLQLFEGRRNRRREAPKVVEEQESRVHYTVCIWRNGKVGLSGMAIADVTLLSGFHALRAD}$ LEKLTSLSDRYVSHFETEGPHVLLYFDSVPTSRECVGFEAVQEVPVGLVQPASATLYDYYNPERRCSVFYGAPSK  $\tt SRLLATLCSAEVCQCAEGKCPRQRRALERGLQDEDGYRMKFACYYPRVEYGFQVKVLREDSRAAFRLFETKITQV$ LHFTKDVKAAANQMRNFLVRASCRLRLEPGKEYLIMGLDGATYDLEGHPQYLLDSNSWIEEMPSERLCRSTRQRA ACAQLNDFLQEYGTQGCQV

GCCAGGACACCATCCTGCCCCAGGCCCAGCTTCTCTCCTGCCTTCCAACGCCATCGGGAGCAATCTCAGCCCC CAACTCTGCCTGATGCCCTTTATCTTGGGCCTCTTGTCTGGAGGTGTGACCACCACTCCATGGTCTTTGGCCCAG CCCCAGGGATCCTGCTCTCTGGAGGGGGTAGAGATCAAAGGCGGCTCCTTCCGACTTCTCCAAGAGGGCCAGGCA CTGGAGTACGTGTGTCCTTCTGGCTTCTACCCGTACCCTGTGCAGACACGTACCTGCAGATCTACGGGGTCCTGG AGCACCCTGAAGACTCAAGACCAAAAGACTGTCAGGAAGGCAGAGTGCAGAGCAATCCACTGTCCAAGACCACAC GACGGTTACACTCTCCGGGGCTCTGCCAATCGCACCTGCCAAGTGAATGGCCGGTGGAGTGGGCAGACAGCGATC CTTGAAGACAGCGTCACCTACCACTGCAGCCGGGGGCTTACCCTGCGTGGCTCCCAGCGGCGAACGTGTCAGGAA GGTGGCTCTTGGAGCGGACGGAGCCTTCCTGCCAAGACTCCTTCATGTACGACACCCCTCAAGAGGTGGCCGAA GCTTTCCTGTCTTCCCTGACAGAGACCATAGAAGGAGTCGATGCTGAGGATGGGCACGGCCCAGGGGAACAACAG AAGCGGAAGATCGTCCTGGACCCTTCAGGCTCCATGAACATCTACCTGGTGCTAGATGGATCAGACAGCATTGGG GCCAGCAACTTCACAGGAGCCAAAAAGTGTCTAGTCAACTTAATTGAGAAGGTGGCAAGTTATGGTGTGAAGCCA AGATATGGTCTAGTGACATATGCCACATACCCCAAAATTTGGGTCAAAGTGTCTGAAGCAGACAGCAGTAATGCA GACTGGGTCACGAAGCAGCTCAATGAAATCAATTATGAAGACCACAAGTTGAAGTCAGGGACTAACACCAAGAAG GCCCTCCAGGCAGTGTACAGCATGATGAGCTGGCCAGATGACGTCCCTCCTGAAGGCTGGAACCGCACCCGCCAT GTCATCATCCTCATGACTGATGGATTGCACAACATGGGCGGGGACCCAATTACTGTCATTGATGAGATCCGGGAC TTGCTATACATTGGCAAGGATCGCAAAAACCCAAGGGAGGATTATCTGGATGTCTATGTGTTTGGGGTCGGGCCT ATGGAAAACCTGGAAGATGTTTTCTACCAAATGATCGATGAAAGCCAGTCTCTGAGTCTCTGTGGCATGGTTTGG GAACACAGGAAGGGTACCGATTACCACAAGCAACCATGGCAGGCCAAGATCTCAGTCATTCGCCCTTCAAAGGGA CACGAGAGCTGTATGGGGGGCTGTGGTGTCTGAGTACTTTGTGCTGACAGCAGCACATTGTTTCACTGTGGATGAC AAGGAACACTCAATCAAGGTCAGCGTAGGAGGGGGGGAGAAGCGGGACCTGGAGATAGAAGTAGTCCTATTTCACCCC AACTACAACATTAATGGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGAACAACTCGAGCTTTG AGGCTTCCTCCAACTACCACTTGCCAGCAACAAAAGGAAGAGCTGCTCCCTGCACAGGATATCAAAGCTCTGTTT GTGTCTGAGGAGAGAAAAAGCTGACTCGGAAGGAGGTCTACATCAAGAATGGGGATAAGAAAGGCAGCTGTGAG AGAGATGCTCAATATGCCCCAGGCTATGACAAAGTCAAGGACATCTCAGAGGTGGTCACCCCTCGGTTCCTTTGT ACTGGAGGAGTGAGTCCCTATGCTGACCCCAATACTTGCAGAGGTGATTCTGGCGGCCCCTTGATAGTTCACAAG AGAAGTCGTTTCATTCAAGTTGGTGTAATCAGCTGGGGAGTAGTGGATGTCTGCAAAAACCAGAAGCGGCAAAAG CAGGTACCTGCTCACGCCCGAGACTTTCACATCAACCTCTTTCAAGTGCTGCCCTGGCTGAAGGAGAAACTCCAA GATGAGGATTTGGGTTTTCTA<u>TAA</u>GGGGTTTCCTGCTGGACAGGGGCGTGGGATTGAATTAAAACAGCTGCGACA AC

MGSNLSPQLCLMPFILGLLSGGVTTTPWSLAQPQGSCSLEGVEIKGGSFRLLQEGQALEYVCPSGFYPYPVQTRT CRSTGSWSTLKTQDQKTVRKAECRAIHCPRPHDFENGEYWPRSPYYNVSDEISHCYDGYTLRGSANRTCQVNGR WSGQTAICDNGAGYCSNPGIPIGTRKVGSQYRLEDSVTYHCSRGLTLRGSQRRTCQEGGSWSGTEPSCQDSFMYD TPQEVAEAFLSSLTETIEGVDAEDGHGPGEQQKRKIVLDPSGSMNIYLVLDGSDSIGASNFTGAKKCLVNLIEKV ASYGVKPRYGLVTYATYPKIWVKVSEADSSNADWVTKQLNEINYEDHKLKSGTNTKKALQAVYSMMSWPDDVPPE GWNRTRHVIILMTDGLHNMGGDPITVIDEIRDLLYIGKDRKNPREDYLDVYVFGVGPLVNQVNINALASKKDNEQ HVFKVKDMENLEDVFYQMIDESQSLSLCGMVWEHRKGTDYHKQPWQAKISVIRPSKGHESCMGAVVSEYFVLTAA HCFTVDDKEHSIKVSVGGEKRDLEIEVVLFHPNYNINGKKEAGIPEFYDYDVALIKLKNKLKYGQTIRPICLPCT EGTTRALRLPPTTTCQQQKEELLPAQDIKALFVSEEEKKLTRKEVYIKNGDKKGSCERDAQYAPGYDKVKDISEV VTPRFLCTGGVSPYADPNTCRGDSGGPLIVHKRSRFIQVGVISWGVVDVCKNQKRQKQVPAHARDFHINLFQVLP WLKEKLQDEDLGFL

GGTCCCAAGGCTTTCCAGAGCGAACCTGTGCGGCTGCAGGCACCGGCGTGTTGAGTTTCCGGCGTTCCGAAGGAC TGAGCTCTTGTCGCGGATCCCGTCCGCCGTTTCCAGCCCCCAGTCTCAGAGCGGAGCCCACAGAGCAGGGCACCG GCATGGCCAAAGCCGCGGCGATCGGCATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCA AGGTGGAGATCATCGCCAACGACCAGGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGC TCATCGGGGATGCGGCCAAGAACCAGGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCG GCCGCAAGTTCGGCGACCCGGTGGTGCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGAGACA AGCCCAAGGTGCAGGTGAGCTACAAGGGGGAGACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGA CCAAGATGAAGGAGATCGCCGAGGCGTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACT TCAACGACTCGCAGCGCCAGGCCAACGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACG AGCCCACGGCCGCCATCGCCTACGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACC TGGGCGGGGCACCTTCGACGTGTCCATCCTGACGATCGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGG ACACCCACCTGGGTGGGGAGGACTTTGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACA AGAAGGACATCAGCCAGAACAAGCGAGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCCAAGAGGACCCTGT CGTCCAGCACCCAGGCCAGCCTGGAGATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGG CGAGGTTCGAGGAGCTGTGCTCCGACCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCA AGCTGGACAAGGCCCAGATTCACGACCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGC TGCAGGACTTCTTCAACGGGCGCGACCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGG TGCAGGCGGCCATCCTGATGGGGGACAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGT CGCTGGGGCTGGAGACGCCGGAGGCGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCACCAAGCAGA CGCAGATCTTCACCACCTACTCCGACAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGA CGAAAGACAACCATCTGTTGGGGCGCTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCG AGGTGACCTTCGACATCGATGCCAACGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAGCA AGATCACCATCACCAACGACAAGGGCCGCCTGAGCAAGGAGGAGGATCGAGCGCATGGTGCAGGAGGCGGAGAAGT ACAAAGCGGAGGACGAGGTGCAGCGCGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGA AGAGCGCCGTGGAGGATGAGGGGCTCAAGGGCAAGATCAGCGAGGCGGACAAGAAGAAGGTTCTGGACAAGTGTC AGCAGGTGTGTAACCCCATCATCAGCGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTTGGGGGCTTCGGGGGCTC AGGGTCCCAAGGGAGGGTCTGGGTCAGGCCCTACCATTGAGGAGGTGGATTTGTCTTTGAGGTGGACTGTTGGGACTCAAGGACTTTGCTGCTGTTTTCCTATGTCATTTCTGCTTCAGCTCTTT GCTGCTTCACTTCTTTGTAAAGTTAAGTTGTAACCTGATGGTAATTAGCTGGCTTCATTATTTTTTGTAGTACAAC CGATATGTTCATTAGAATTCTTTGCATTTAATGTTGATACTGTAAGGGTGTTTCGTTCCCTTTAAATGAATCAAC TGGGAATGTATGTTTTATAATTTGTTTATTTAAATATGAAAAATAAAATGTTAAACTTT

GCTGCTGCGACAGTCCACTACCTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCTGTGCG GCTGCAGGCACCGGCGCGTCGAGTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTCCGTTT CCAGCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGCATCGCCAAAGCCGCGGCGATCGGCATCG ACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCAGGGCA ACCGCACCACCCCAGCTACGTGGCCTTCACGGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCAGGTGG CGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGTGCAGT CGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAAGGGG ACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGCGTACC TGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCACCAAGG ATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACGAGCCCACGGCCGCCGCCATCGCCTACGGCC TGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTCCATCC ACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCGAGCCG TGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAGCCTGGAGATCG ACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTCGAGGAGCTGTGCTCCGACCTGT TCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCCAGATTCACGACCTGG TCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGACCTGA  ${\tt CCGAGAACGTGCAGGACCTGCTGCTGGACGTGGCTCCCCTGTCGCTGGGGCTGGAGACGGCCGGAGGCGTGA}$ TGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTCACCACCTACTCCGACAACC  ${\tt AACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACCATCTGTTGGGGCGCTTCG}$ AGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAACGGCA TCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCCAACAAGATCACCATCACCAACGACAAGGGCCGCC TGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCGCGAGA GGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCTCAAGG GCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTCATCTCGTGGCTGGACGCCAACA  $\tt CCACCATTGAGGAGGTAGAT{\color{red}{TAG}} GGGCCTTTCCAAGATTGCTGTTTTTGTTTTGGAGCTTCAAGACTTTGCATTT$ CCTAGTATTTCTGTTTGTCAGTTCTCAATTTCCTGTGTTTGCAATGTTGAAATTTTTTGGTGAAGTACTGAACTT GCTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTTAATACAC 

MAKAAAIGIDLGTTYSCVGVFQHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVALNPQNTVFDAKRLIG
RKFGDPVVQSDMKHWPFQVINDGDKPKVQVSYKGDTKAFYPEEISSMVLTKMKEIAEAYLGYPVTNAVITVPAYF
NDSQRQATKDAGVIAGLNVLRIINEPTAAAIAYGLDRTGKGERNVLIFDLGGGTFDVSILTIDDGIFEVKATAGD
THLGGEDFDNRLVNHFVEEFKRKHKKDISQNKRAVRRLRTACERAKRTLSSSTQASLEIDSLFEGIDFYTSITRA
RFEELCSDLFRSTLEPVEKALRDAKLDKAQIHDLVLVGGSTRIPKVQKLLQDFFNGRDLNKSINPDEAVAYGAAV
QAAILMGDKSENVQDLLLLDVAPLSLGLETAGGVMTALIKRNSTIPTKQTQIFTTYSDNQPGVLIQVYEGERAMT
KDNNLLGRFELSGIPPAPRGVPQIEVTFDIDANGILNVTATDKSTGKANKITITNDKGRLSKEEIERMVQEAEKY
KAEDEVQRERVSAKNALESYAFNMKSAVEDEGLKGKISEADKKKVLDKCQEVISWLDANTLAEKDEFEHKRKELE
QVCNPIISGLYQGAGGPGPGGFGAQGPKGGSGSGFTIEEVD

 ${\tt MLFYSFFKSLVGKDVVVELKNDLSICGTLHSVDQYLNIKLTDISVTDPEKYPHMLSVKNCFIRGSVVRYVQLPAD}\\ {\tt EVDTQLLQDAARKEALQQKQ}$ 

### FIGURE 1967A

GTCACAAAGGGGGGAACACGTGGGCGCCGGCTGCCGGGGCGGCGATCTTAGGGAACTAGGGTCACCTGGAGAGCC GAGGTGGATTCCCGGCCCAGTCTGACCATCTCCCTCCAGTTTTTCCACTTCGTACCGACCTTCTCATAACTATGT CTGGGGAGGTCCCGGATGGGGAGGACCCACCCCCGCATCTGTCTCCAGCCACCCCCGACTAGCAGGACTCCCT AGCTGCTGTGGCCAGCAGGCCTGGGGGGGCCCAGGGGGGCAGCCGGGCGGCTGTCCTTGTCCAACAGTGGGTCAGTT ACCCCCAGGCTGTGCTGGGGGCCCTGGGCCCCTGAGCCCCTTGGAGGAGTGGCTTCGGCTGCACACCTACT ACCCACCTGCCCGCCGGATCTGGAATAATGTGACTCGCTGGTTTGTCACGTGTGTCCCGGCAGCCAGAATTCCGAG TCCCAAAGACAGCTGCTCAGCTCAAGAAAGAGGCAAAGAAACGGGAGAAGCTAGAGAAATTCCAACAGAAGCAGA AGATCCAACAGCAGCCACCTCCAGGGGAGAAGAAACCAAAACCAGAGAAGAGGGAGAAACGGGATCCTGGGG TCATTACCTATGACCTCCCAACCCCACCCGGGGAAAAGAAGATGTCAGTGGCCCCATGCCCGACTCCTACAGCC CTCGGTATGTGGAGGCTGCCTGGTACCCTTGGTGGGAGCAGCAGGGCTTCTTCAAGCCAGAGTATGGGCGTCCTA ATGTGTCAGCAGCAAATCCCCGAGGTGTCTTCATGATGTGCATCCCACCCCCAATGTGACAGGCTCCCTGCACC TGGGCCATGCACCAACGCCATCCAGGACTCCCTGACTCGATGGCACCGCATGCGTGGGGAGACCACCCTGT GGAACCCTGGCTGTGACCATGCAGGTATTGCCACCCAGGTGGTGGTGGAGAAGAAGCTATGGCGTGAGCAGGGAC TGAGCCGGCACCAGCTGGGCCGCGAGGCCTTTCTACAGGAAGTCTGGAAGTGGAAGGAGGAGAAAGGTGACCGGA TTTACCACCAGTTGAAGAAGCTTGGCAGCTCCTTGGACTGGGATCGAGCCTGTTTCACCATGGACCCTAAACTCT CAGCAGCTGTGACAGAGGCCTTTGTCCGGCTTCACGAGGAAGGCATCATCTATCGCAGTACCCGCCTTGTTAACT GGTCCTGCACCCTCAACTCCGCCATCTCTGACATTGAGGTGGATAAGAAGGAGCTGACAGGTCGCACCCTGCTCT CCGTGCCTGGCTACAAGGAGAAGGTGGAGTTCGGGGTCCTCGTGTCCTTTGCCTATAAGGTCCAAGGCTCAGATA GCGACGAGGAGGTGGTGGCGAACAACTCGGATCGAGACAATGCTGGGAGATGTGGCTGTAGCTGTGCACCCCA  ${\tt AAGATACCAGCACCTGAAGGGGAAGAACGTGATCCACCCATTCCTGTCTCGGAGCCTTCCCATTGTCT}$ TCGATGAATTTGTGGACATGGACTTTGGCACAGGTGCTGTGAAGATCACCCCCGCACATGACCAAAATGACTATG  ${\tt AAGTTGGGCAGGGCCAGGGGCCATCAGCATCATGGACTCCCGGGGGGGCCCTCATCAATGTGCCTCCGC}$  $\tt CTTTCCTGGGCCTGCCCAGGTTTGAGGCCAGGAAAGCGGTGCTGGTGGCGCTGAAGGAGCGGGGACTGTTCCGTG$ AGTGGTACGTTCGCGGGGAGATGGCCCAGGCTGCCAGCGCGCTGTGACTCGGGGTGACCTCCGCATCCTGC  $\tt CTGAGGCCCATCAGCGCACATGGCATGCCTGGATGGACAACATCCGGGAGTGGTGCATTTCCAGGCAGCTGTGGT$ GGGGCCATCCCAGCCTACTTTGTCACTGTCAGTGACCCAGCGGTGCCCCCTGGGGAGGACCCTGATGGGC GGTACTGGGTGAGTGGACGCAATGAGGCGGAGGCCCGGGAGAAGGCAGCCAAGGAGTTCGGAGTGTCCCCTGACA AGATCAGTCTCCAGCAAGATGAGGATGTATTGGATACCTGGTTCTCCTCTGGCCTCTTCCCCTTATCCATTTTGG GCTGGCCCAACCAGTCAGAAGACCTGAGTGTTCTACCCCGGGACACTGCTGGAGACCGGTCATGACATCCTCT  ${\tt TCTTCTGGGTGGCCCGGATGGTCATGCTGGGCCTGAAGCTCACGGGCAGGCTGCCCTTTAGAGAGGTCTACCTCC}$ ATGCCATCGTGCGAGATGCTCACGGCCGGAAGATGAGCAAGTCTCTAGGCAATGTCATCGATCCCCTGGATGTCA TCTATGGAATCTCCCTGCAGGGCCTCCACAACCAGCTGCTGAACAGCAACCTGGATCCCAGCGAGGTGGAGAAGG CCAAAGAAGGGCAGAAAGCTGACTTCCCAGCGGGGATTCCTGAATGTGGCACCGATGCTCTCCGGTTTGGATTAT GTGCCTACATGTCCCAGGGTCGTGACATCAACCTGGATGTGAACCGGATACTGGGTTACCGCCACTTCTGCAACA GAGGCCATGAGAGCCTGGTGGACCGCTGGATCCGCAGCCGCCTGACAGAGGCTGTGAGGCTCAGCAATCAAGGCT TCCAGGCCTACGACTTCCCGGCCGTCACCACTGCCCAGTACAGCTTCTGGCTCTATGAGCTCTGTGATGTCTACT TGGAGTGCCTGAAACCTGTACTGAATGGGGTGGACCAGGTGGCAGCTGAGTGTGCCCGCCAGACCCTGTACACTT GCCTGGACGTTGGCCTGCGGCTGCTCTCACCCTTCATGCCCTTCGTGACGGAGGAGCTGTTCCAGAGGCTGCCCC GGAGGATGCCGCAAGCTCCCCTAGCCTCTGTGTTACCCCCTACCCGGAGCCCTCAGAGTGCTCCTGGAAGGACC CCGAGGCAGAAGCCGCCCTTGAGCTGGCGCTAAGCATCACGCGAGCCGTGCGCTCCCTGCGGGCCGACTACAACC

### 2137/6881 FIGURE 1967B

MSTLYVSPHPDAFPSLRALIAARYGEAGEGPGWGGAHPRICLQPPPTSRTPFPPPRLPALEQGPGGLWVWGATAV AQLLWPAGLGGPGGSRAAVLVQQWVSYADTELIPAACGATLPALGLRSSAQDPQAVLGALGRALSPLEEWLRLHT  $\verb|YLAGEAPTLADLAAVTALLLPFRYVLDPPARRIWNNVTRWFVTCVRQPEFRAVLGEVVLYSGARPLSHQPGPEAP|\\$ ALPKTAAOLKKEAKKREKLEKFOOKOKIOOOOPPPGEKKPKPEKREKRDPGVITYDLPTPPGEKKDVSGPMPDSY SPRYVEAAWYPWWEQQGFFKPEYGRPNVSAANPRGVFMMCIPPPNVTGSLHLGHALTNAIQDSLTRWHRMRGETT LWNPGCDHAGIATOVVVEKKLWREOGLSRHOLGREAFLQEVWKWKEEKGDRIYHQLKKLGSSLDWDRACFTMDPK LSAAVTEAFVRLHEEGIIYRSTRLVNWSCTLNSAISDIEVDKKELTGRTLLSVPGYKEKVEFGVLVSFAYKVQGS DSDEEVVVATTRIETMLGDVAVAVHPKDTRYQHLKGKNVIHPFLSRSLPIVFDEFVDMDFGTGAVKITPAHDQND YEVGORHGLEAISIMDSRGALINVPPPFLGLPRFEARKAVLVALKERGLFRGIEDNPMVVPLCNRSKDVVEPLLR POWYVRCGEMAOAASAAVTRGDLRILPEAHQRTWHAWMDNIREWCISRQLWWGHRIPAYFVTVSDPAVPPGEDPD GRYWVSGRNEAEAREKAAKEFGVSPDKISLQQDEDVLDTWFSSGLFPLSILGWPNQSEDLSVFYPGTLLETGHDI LFFWVARMVMLGLKLTGRLPFREVYLHAIVRDAHGRKMSKSLGNVIDPLDVIYGISLQGLHNQLLNSNLDPSEVE KAKEGQKADFPAGIPECGTDALRFGLCAYMSQGRDINLDVNRILGYRHFCNKLWNATKFALRGLGKGFVPSPTSQ PGGHESLVDRWIRSRLTEAVRLSNOGFOAYDFPAVTTAOYSFWLYELCDVYLECLKPVLNGVDQVAAECARQTLY TCLDVGLRLLSPFMPFVTEELFQRLPRRMPQAPPSLCVTPYPEPSECSWKDPEAEAALELALSITRAVRSLRADY NLTRIRPDCFLEVADEATGALASAVSGYVQALASAGVVAVLALGAPAPQGCAVALASDRCSIHLQLQGLVDPARE LGKLQAKRVEAQRQAQRLRERRAASGYPVKVPLEVQEADEAKLQQTEAELRKVDEAIALFQKML

### FIGURE 1969

GCGGCTCTCTGATCCAGCCCGGGAGAGGACCGAGCTGGAGGAGCTGGGTGTGGGGTGCGTTGGGCTGGGGAG GCCTAGTTTGGGTGCAAGTAGGTCTGATTGAGCTTGTGTTGTGCTGAAGGGACAGCCCTGGGTCTAGGGGAGAGA GTCCCTGAGTGTGAGACCCGCCTTCCCCGGTCCCAGCCCCTCCCAGTTCCCCAGGGACGGCCACTTCCTGGTCC  $\texttt{CCGACGCAACC} \underline{\textbf{ATG}} \texttt{GCTGAAGAACAACCGCAGGTCGAATTGTTCGTGAAGGCTGGCAGTGATGGGGCCAAGATTG}$ GGAACTGCCCATTCTCCCAGAGACTGTTCATGGTACTGTGGCTCAAGGGAGTCACCTTCAATGTTACCACCGTTG ACACCAAAAGGCGGACCGAGACAGTGCAGAAGCTGTGCCCAGGGGGGGCAGCTCCCATTCCTGCTGTATGGCACTG AAGTGCACACAGACAACAAGATTGAGGAATTTCTGGAGGCAGTGCTGTGCCCTCCCAGGTACCCCAAGCTGG CAGCTCTGAACCCTGAGTCCAACACAGCTGGGCTGGACATATTTGCCAAATTTTCTGCCTACATCAAGAATTCAA ACCCAGCACTCAATGACAATCTGGAGAAGGGACTCCTGAAAGCCCTGAAGGTTTTAGACAATTACTTAACATCCC CCCTCCCAGAAGAAGTGGATGAAACCAGTGCTGAAGATGAAGGTGTCTCTCAGAGGAAGTTTTTGGATGGCAACG AGCTCACCCTGGCTGACTGCAACCTGTTGCCAAAGTTACACATAGTACAGGTGGTGTGAAGAAGTACCGGGGAT TCACCATCCCCGAGGCCTTCCGGGGAGTGCATCGGTACTTGAGCAATGCCTACGCCCGGGAAGAATTCGCTTCCA TGGGGGGCCTGGGTCAGATTTTTATTGTGGGGTGGGTGAGTAGGACAACATATTTCAGTAATAAAATACAGAAT AAAAATCAAGTGTTTTTAAAAAAAA

MAEEQPQVELFVKAGSDGAKIGNCPFSQRLFMVLWLKGVTFNVTTVDTKRRTETVQKLCPGGQLPFLLYGTEVHT DTNKIEEFLEAVLCPPRYPKLAALNPESNTAGLDIFAKFSAYIKNSNPALNDNLEKGLLKALKVLDNYLTSPLPE EVDETSAEDEGVSQRKFLDGNELTLADCNLLPKLHIVQVVCKKYRGFTIPEAFRGVHRYLSNAYAREEFASTCPD DEEIELAYEQVAKALK

### FIGURE 1971

ATGAGCAGCTCAGAGGAGGTGTCCTGGATTTCCTGGTTCTGTGGGCTCCGTGGCAATGAATTCTTCTGTGAAGTG
GATGAAGACTACATCCAGGACAAATTTAATCTTACTGGACTCAATGAGCAGGTCCCTCACTACCGACAAGCTCTA
GACATGATCTTGGACCTGGAGCCTGATGAAGAACTGGAAGACAACCCCAACCAGAGTGACCTGATTGAGCAGGCA
GCCGAGATGCTTTATGGATTGATCCACGCCCGCTACATCCTTACCAACCGTGGCATCGCCCAGATGTTGGAAAAG
TACCAGCAAGGAGACTTTGGTTACTGTCCTCGTGTGTACTGTGAGAACCAGCCAATGCTTCCCATTGGCCTTTCA
GACATCCCAGGTGAAGCCATGGTGAAGCTCTACTGCCCCAAGTGATGTGTACACACCCAAGTCATCAAGA
CACCATCACACGGATGCGCCTACTTCGGCACTGGTTTCCCTCACATGCTCTTCATGGTGCATCCCGAGTACCGG
CCCAAGAGACCTGCCAACCAGTTTGTGCCCAGGCTCTACGGTTTCAAGATCCATGCGATGGCCTACCAGCTGCAG
CTCCAAGCCGCCAGCAACTTCAAGAGCCCAGTCAAAGACGATTCGC<u>TGA</u>

MSSSEEVSWISWFCGLRGNEFFCEVDEDYIQDKFNLTGLNEQVPHYRQALDMILDLEPDEELEDNPNQSDLIEQA AEMLYGLIHARYILTNRGIAQMLEKYQQGDFGYCPRVYCENQPMLPIGLSDIPGEAMVKLYCPKCMDVYTPKSSR HHHTDGAYFGTGFPHMLFMVHPEYRPKRPANQFVPRLYGFKIHAMAYQLQLQAASNFKSPVKTIR

#### 2143/6881 FIGURE 1973A

TAGTGCGACGCACGCAGGCGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCCCT CCCACCTAGGCCGGCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC CCACAAAAGTAAAGCTTGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA CGGAAGTGGCCGTCGGTGGCAGGTTTGGGGGAGACCGGAAGTGACGAGACCTGTCGGCC<u>ATG</u>GAGCCTAATGATA GTACCAGTACCGCTGTGGAGGAGCCTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCT TTATTGTGGGGGCCCAGATGAATGTAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAA AACAACGGCTCATTTACCAGGGACGAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGG TTATCCACCTGGTGGAACGGGCTCCTCCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGTCTGCCT CAGCCACTCATGGTGGGGGATCCCCCCTGGTACTCGGGGGCCTGGGGGCCTCTGTTCATGACCGGAATGCCAACA GCTATGTCATGGTTGGAACCTTCAATCTTCCTAGTGACGGCTCTGCTGGGATGTTCACATCAACATGGAACAGG CCCCGATTCAGAGTGAGCCCCGGGTACGGCTGGTGATGGCTCAGCACATGATCAGGGATATACAGACCTTACTAT CCCGGATGGAGACTCTCCCCTACCTTCAGTGTCGAGGAGGGCCCCAACCGCAGCACAGTCAGCCGCCCCCGCAGC CACCGGCTGTGACCCCGGAGCCAGTAGCCTTGAGCTCTCAAACATCAGAACCAGTTGAAAGTGAAGCACCTCCCC GGGAGCCCATGGAGGCAGAAGAAGTGGAGGAGCGTGCCCCAGCCCAGAACCCGGAGCTCACTCCTGGCCCAGCCC CAGCGGGCCCAACACCTGCCCCGGAAACAATGCACCCAACCATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCC AGGAGCTACAGCGGCTGGAGAGTCGCCTCCAGCCCTTCTTGCAGCGCTACTACGAGGTTCTGGGTGCTGCTGCCA CCACGGACTACAATAACAATCACGAGGGCCGGGAGGAGGATCAGCGGTTGATCAACTTGGTAGGGGAGAGCCTGC GACTGCTGGGCAACACCTTTGTTGCACTGTCTGACCTGCGCTGCAATCTGGCCTGCACGCCCCCACGACACCTGC TGGGAACCACTGTGACCATGACAGGAAATGGGACTCGGCCCCCCCAACTCCCAATGCAGAGGCACCTCCCCTG GTCCTGGGCAGGCCTCATCCGTGGCTCCGTCTTCTACCAATGTCGAGTCCTCAGCTGAGGGGGGCTCCCCCGCCAG GTCCAGCTCCCCGCCAGCCACCAGCCACCCGAGGGTCATCCGGATTTCCCACCAGAGTGTGGAACCCGTGGTCA TGATGCACATGAACATTCAAGATTCTGGCACACAGCCTGGTGGTGTTCCGAGTGCTCCCACTGGCCCCCTGGGAC GGCCCACTCCTCCACAGGCTCGGCCTTCCCATCCTGGAGGGCCCCCAGTCTCTGGGACACTGCAGGGCGCCGGTC TGGGTACCAATGCCTCGTTGGCCCAGATGGTGAGCGGCCTTGTGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGG CTCAGGGGACCCCAGGTATGGCTCCACCGCCAGCCCTGCCACTGCTTCTGCCAGTGCTGGCACCACCAACACAC CTACCACAGCTGGCCCGCTCCTGGGGGGCCTGCCCAGCCTCCACCCCTCAACCCTCCATGGCTGATCTTC AGTTCTCTCAGCTTCTGGGGAACCTGCTAGGGCCTGCAGGGCCAGGGGCCTGGAGGGCCTGGTGTGGCTTCTCCCA CTTCTGGTGGCGCAGGGAGTCCTGGAGGCCTGGGTCTTGAGAGCCTGTCACCGGAGTTTTTTACCTCAGTGGTGC AGGGTGTGCTCAGCTCCCTGGGGCTCCCTGGGGGCTCGGGCTGGCAGTGAAAGTATTGCTGCCTTCATAC AACGCCTCAGTGGATCCAGCAACATCTTTGAGCCTGGAGCTGATGGGGCCCTTGGATTCTTTGGGGCCTTGCTTT CTCTTCTGTGCCAGAACTTCTCTATGGTGGACGTAGTGATGCTTCTCCATGGGCATTTCCAGCCACTACAACGGC TCCAGCCCCAGCTGCGATCCTTCTTCCACCAGCACTACCTGGGTGGTCAGGAGCCCACACCCAGTAACATCCGGA TGGCAACCCACACATTGATCACGGGGCTAGAAGAGTATGTGCGGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAG GTGTGGACATCATCCGGACAAACCTGGAATTTCTCCAAGAGCAGTTTAATAGCATTGCTGCGCATGTGCTGCATT GCACAGATAGTGGATTTGGGGCCCGGTTGCTGGAGTTGTGTAACCAAGGCCTGTTTGAATGCCTGGCCCTAAACC TGCACTGCTTGGGGGGACAGCAGATGGAGCTTGCTGCTGTTATCAATGGCCGAATTCGTCGTATGTCTCGTGGGG TGAATCCCTCCTTGGTGAGCTGGCTGACCACTATGATGGGACTGAGGCTTCAGGTGGTACTGGAGCACATGCCTG TAGGCCCTGATGCCATTCTCAGATACGTTCGCAGGGTTGGTGATCCCCCCCAGCCACTTCCTGAGGAGCCAATGG AAGTTCAGGGAGCAGAAAGAGCTTCCCCTGAGCCTCAGCGGGAGAATGCTTCCCCAGCCCCTGGAACAACAGCAG AAGAGGCCATGTCCCGAGGTCCACCTCCTGCTCCTGAGGGGGGCTCCCGGGATGAACAGGATGGAGCTTCAGCTG AGACAGAACCTTGGGCAGCTGCAGTCCCCCAGAATGGGTCCCTATTATCCAGCAGGACATTCAGAGCCAGCGGA GTGAGGGCCCCCAGCTGCTTCTCTCAGAGGCTGTGAGCCGGGCAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGA GCCCCGAGAGCCTGAGCCGGGACCTGGAGGCACCAGAGGTTCAGGAGAGCTACAGGCAGCAGCTCCGGTCTGATA

# FIGURE 1973B

### FIGURE 1974

WO 2004/030615

 ${\tt MEPNDSTSTAVEEPDSLEVLVKTLDSQTRTFIVGAQMNVKEFKEHIAASVSIPSEKQRLIYQGRVLQDDKKLQEY}$  ${\tt NVGGKVIHLVERAPPQTHLPSGASSGTGSASATHGGGSPPGTRGPGASVHDRNANSYVMVGTFNLPSDGSAVDVH}$  ${\tt INMEQAPIQSEPRVRLVMAQHMIRDIQTLLSRMETLPYLQCRGGPQPQHSQPPPQPPAVTPEPVALSSQTSEPVE}$ SEAPPREPMEAEEVEERAPAQNPELTPGPAPAGPTPAPETNAPNHPSPAEYVEVLQELQRLESRLQPFLQRYYEV  ${\tt LGAAATTDYNNNHEGREEDQRLINLVGESLRLLGNTFVALSDLRCNLACTPPRHLHVVRPMSHYTTPMVLQQAAI}$ PIQINVGTTVTMTGNGTRPPPTPNAEAPPPGPGQASSVAPSSTNVESSAEGAPPPGPAPPPATSHPRVIRISHQS VEPVVMMHMNIQDSGTQPGGVPSAPTGPLGPPGHGQTLGQQVPGFPTAPTRVVIARPTPPQARPSHPGGPPVSGT  ${\tt LQGAGLGTNASLAQMVSGLVGQLLMQPVLVAQGTPGMAPPPAPATASASAGTTNTATTAGPAPGGPAQPPPTPQP}$ PPPGSPSGGAGSPGGLGLESLSPEFFTSVVQGVLSSLLGSLGARAGSSESIAAFIQRLSGSSNIFEPGADGALGF  ${\tt FGALLSLLCQNFSMVDVVMLLHGHFQPLQRLQPQLRSFFHQHYLGGQEPTPSNIRMATHTLITGLEEYVRESFSL}$  $\tt VQVQPGVDIIRTNLEFLQEQFNSIAAHVLHCTDSGFGARLLELCNQGLFECLALNLHCLGGQQMELAAVINGRIR$  ${\tt RMSRGVNPSLVSWLTTMMGLRLQVVLEHMPVGPDAILRYVRRVGDPPQPLPEEPMEVQGAERASPEPQRENASPA}$  ${\tt PGTTAEEAMSRGPPPAPEGGSRDEQDGASAETEPWAAAVPPEWVPIIQQDIQSQRKVKPQPPLSDAYLSGMPAKR}$  $\tt RKTMQGEGPQLLLSEAVSRAAKAAGARPLTSPESLSRDLEAPEVQESYRQQLRSDIQKRLQEDPNYSPQRFPNAQ$ RAFADDP

### FIGURE 1975A

TAGTGCGACGCACGCAGGCGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCGCT CCCACCTAGGCCGGCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC CCACAAAAGTAAAGCTTGGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA CGGAAGTGGCCGTCGGTGGCAGGTTTGGGGGAGACCGGAAGTGACGAGACCTGTCGGCC<u>ATG</u>GAGCCTAATGATA GTACCAGTACCGCTGTGGAGGAGCCTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCT TTATTGTGGGGGCCCAGATGAATGTAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAA AACAACGGCTCATTTACCAGGGACGAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGG TTATCCACCTGGTGGAACGGGCTCCTCCTCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGGTCTGCCT CAGCCACTCATGGTGGGGGATCCCCCCTGGTACTCGGGGGCCTGGGGCCTCTGTTCATGACCGGAATGCCAACA GCTATGTCATGGTTGGAACCTTCAATCTTCCTAGTGACGGCTCTGCTGTGGATGTTCACATCAACATGGAACAGG CCCCGATTCAGAGTGAGCCCCGGGTACGGCTGGTGATGGCTCAGCACATGATCAGGGGATATACAGACCTTACTAT CCCGGATGGAGTGTCGAGGAGGGCCCCAACCGCAGCACAGTCAGCCGCCCCCGCAGCCACCGGCTGTGACCCCGG AGCCAGTAGCCTTGAGCTCTCAAACATCAGAACCAGTTGAAAGTGAAGCACCTCCCCGGGAGCCCATGGAGGCAG AAGAAGTGGAGGAGCGTGCCCCAGCCCAGAACCCGGAGCTCACTCCTGGCCCAGCCCCAGCGGGCCCAACACCTG CCCCGGAAACAAATGCACCCAACCATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCCAGGAGCTACAGCGGCTGG AGAGTCGCCTCCAGCCCTTCTTGCAGCGCTACTACGAGGTTCTGGGTGCTGCCGCCACCACGGACTACAATAACA ATCACGAGGGCCGGGAGGAGGATCAGCGGTTGATCAACTTGGTAGGGGAGAGCCTGCGACTGCTGGGCAACACCT TTGTTGCACTGTCTGACCTGCGCTGCAATCTGGCCTGCACGCCCCCACGACACCTGCATGTGGTCCGGCCTATGT CTCACTACACCACCCCCATGGTGCTCCAGCAGGCAGCCATTCCCATACAGATCAATGTGGGAACCACTGTGACCA TGACAGGAAATGGGACTCGGCCCCCCCAACTCCCAATGCAGAGGCACCTCCCCTGGTCCTGGGCAGGCCTCAT CCGTGGCTCCGTCTTCTACCAATGTCGAGTCCTCAGCTGAGGGGGCTCCCCCGCCAGGTCCAGCTCCCCCGCCAG CCACCAGCCACCGAGGGTCATCCGGATTTCCCACCAGAGTGTGGAACCCGTGGTCATGATGCACATGAACATTC AAGATTCTGGCACACAGCCTGGTGGTGTTCCGAGTGCTCCCACTGGCCCCCTGGGACCCCCTGGTCATGGCCAAA CCCTGGGACAGCAGGTGCCAGGCTTCCCAACAGCTCCAACCCGGGTGGTGATTGCCCGGCCCACTCCTCCACAGG CTCGGCCTTCCCATCCTGGAGGGCCCCCAGTCTCTGGGACACTGCAGGGCGCCGGTCTGGGTACCAATGCCTCGT TGGCCCAGATGGTGAGCGGCCTTGTGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGGCTCAGGGGACCCCAGGTA TGGCTCCACCGCCAGCCCCTGCCACTGCTTCTGCCAGTGCTGGCACCACCAACACAGCTACCACAGCTGGCCCCG CTCCTGGGGGGCCTGCCCAGCCTCCACCCCTCAACCCTCCATGGCTGATCTTCAGTTCTCTCAGCTTCTGG GGAACCTGCTAGGGCCTGCAGGGCCAGGGGCTGGAGGGTCTGGTGTGGCTTCTCCCACCATCACTGTGGCGATGC GTCCTGGAGGCCTGGGTCTTGAGAGCCTGTCACCGGAGTTTTTTACCTCAGTGGTGCAGGGTGTGCTCAGCTCCC TGCTGGGCTCCCTGGGGGCTCGGGCTGGCAGCAGTGAAAGTATTGCTGCCTTCATACAACGCCTCAGTGGATCCA GCAACATCTTTGAGCCTGGAGCTGATGGGGCCCTTGGATTCTTTTGGGGCCCTTGCTTTCTCTTCTGTGCCAGAACT TCTCTATGGTGGACGTAGTGATGCTTCTCCATGGGCATTTCCAGCCACTACAACGGCTCCAGCCCCAGCTGCGAT CCTTCTTCCACCAGCACTACCTGGGTGGTCAGGAGCCCACACCCAGTAACATCCGGATGGCAACCCACACTTGA TCACGGGGCTAGAAGAGTATGTGCGGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAGGTGTGGACATCATCCGGA CAAACCTGGAATTTCTCCAAGAGCAGTTTAATAGCATTGCTGCGCATGTGCTGCATTGCACAGATAGTGGATTTG GGGCCCGGTTGCTGGAGTTGTGTAACCAAGGCCTGTTTGAATGCCTGGCCCTAAACCTGCACTGCTTGGGGGGAC AGCAGATGGAGCTTGCTGCTGTTATCAATGGCCGAATTCGTCGTATGTCTCGTGGGGTGAATCCCTCCTTGGTGA GCTGGCTGACCACTATGATGGGACTGAGGCTTCAGGTGGTACTGGAGCACATGCCTGTAGGCCCTGATGCCATTC TCAGATACGTTCGCAGGGTTGGTGATCCCCCCCAGCCACTTCCTGAGGAGCCAATGGAAGTTCAGGGAGCAGAAA GAGCTTCCCCTGAGCCTCAGCGGGAGAATGCTTCCCCAGCCCCTGGAACAACAGCAGAAGAGGCCATGTCCCGAG GTCCACCTCCTGCTCCTGAGGGGGGCTCCCGGGATGAACAGGATGGAGCTTCAGCTGAGACAGAACCTTGGGCAG CTGCAGTCCCCCAGAATGGGTCCCTATTATCCAGCAGGACATTCAGAGCCAGCGGAAGGTGAAACCGCAGCCCC CTCTGAGTGATGCCTACCTCAGTGGTATGCCTGCCAAGAGGCGCAAGACGATGCAGGGTGAGGGCCCCCAGCTGC TTCTCTCAGAGGCTGTGAGCCGGGCAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGAGCCCCGAGAGCCTGAGCC GGGACCTGGAGGCACCAGAGGTTCAGGAGAGCTACAGGCAGCTCCGGTCTGATATACAAAAACGACTGCAGG

# FIGURE 1975B

MEPNDSTSTAVEEPDSLEVLVKTLDSQTRTFIVGAQMNVKEFKEHIAASVSIPSEKQRLIYQGRVLQDDKKLQEY
NVGGKVIHLVERAPPQTHLPSGASSGTGSASATHGGGSPPGTRGPGASVHDRNANSYVMVGTFNLPSDGSAVDVH
INMEQAPIQSEPRVRLVMAQHMIRDIQTLLSRMECRGGPQPQHSQPPPQPPAVTPEPVALSSQTSEPVESEAPPR
EPMEAEEVEERAPAQNPELTPGPAPAGPTPAPETNAPNHPSPAEYVEVLQELQRLESRLQPFLQRYYEVLGAAAT
TDYNNNHEGREEDQRLINLVGESLRLLGNTFVALSDLRCNLACTPPRHLHVVRPMSHYTTPMVLQQAAIPIQINV
GTTVTMTGNGTRPPPTPNAEAPPPGPGQASSVAPSSTNVESSAEGAPPPGPAPPPATSHPRVIRISHQSVEPVVM
MHMNIQDSGTQPGGVPSAPTGPLGPPGHGQTLGQQVPGFPTAPTRVVIARPTPPQARPSHPGGPPVSGTLQGAGL
GTNASLAQMVSGLVGQLLMQPVLVAQGTPGMAPPPAPATASASAGTTNTATTAGPAPGGPAQPPPTPQPSMADLQ
FSQLLGNLLGPAGPGAGGSGVASPTITVAMPGVPAFLQGMTDFLQATQTAPPPPPPPPPPPPPPPPPPSPSP
SGGAGSPGGLGLESLSPEFFTSVVQGVLSSLLGSLGARAGSSESIAAFIQRLSGSSNIFEPGADGALGFFGALLS
LLCQNFSMVDVVMLLHGHFQPLQRLQPQLRSFFHQHYLGGQEPTPSNIRMATHTLITGLEEYVRESFSLVQVQPG
VDIIRTNLEFLQEQFNSIAAHVLHCTDSGFGARLLELCNQGLFECLALNLHCLGGQQMELAAVINGRIRRMSRGV
NPSLVSWLTTMMGLRLQVVLEHMPVGPDAILRYVRRVGDPPQPLPEEPMEVQGAERASPEPQRENASPAPGTTAE
EAMSRGPPPAPEGGSRDEQDGASAETEPWAAAVPPEWVPIIQQDIQSQRKVKPQPPLSDAYLSGMPAKRRKTMQG
EGPQLLLSEAVSRAAKAAGARPLTSPESLSRDLEAPEVQESYRQQLRSDIQKRLQEDPNYSPQRFPNAQRAFADD

#### 2149/6881 FIGURE 1977A

TAGTGCGACGCACGCGGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCGCT CCCACCTAGGCCGGCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC CCACAAAAGTAAAGCTTGGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA CGGAAGTGGCCGTCGGTGGCAGAGACCTGTCGGCC<u>ATC</u>GAGCCTAATGATAGTACCAGTACCGCTGTGGAGGAGC CTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCTTTATTGTGGGGGCCCAGATGAATG TAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAAAACAACGGCTCATTTACCAGGGAC GAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGGTTATCCACCTGGTGGAACGGGCTC CTCCTCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGGTCTGCCTCAGCCACTCATGGTGGGGGATCCC CCCCTGGTACTCGGGGGCCTGGGGCCTCTGTTCATGACCGGAATGCCAACAGCTATGTCATGGTTGGAACCTTCA ATCTTCCTAGTGACGGCTCTGCTGTGGATGTTCACATCAACATGGAACAGGCCCCGATTCAGAGTGAGCCCCGGG TACGGCTGGTGATGGCTCAGCACATGATCAGGGATATACAGACCTTACTATCCCGGATGGAGTGTCGAGGAGGGC CCCAACCGCAGCACAGTCAGCCGCCCCCGCAGCCACCGGCTGTGACCCCGGAGCCAGTAGCCTTGAGCTCTCAAA CATCAGAACCAGTTGAAAGTGAAGCACCTCCCCGGGAGCCCATGGAGGCAGAAGAAGTGGAGGAGCGTGCCCCAG CCCAGAACCCGGAGCTCACTCCTGGCCCAGCCCCAGCGGGCCCAACACCTGCCCCGGAAACAAATGCACCCAACC ATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCCAGGAGCTACAGCGGCTGGAGAGTCGCCTCCAGCCCTTCTTGC AGCGCTACTACGAGGTTCTGGGTGCTGCCACCACGGACTACAATAACAATCACGAGGGCCGGGAGGAGGATC AGCGGTTGATCAACTTGGTAGGGGAGAGCCTGCGACTGCTGGGCAACACCTTTGTTGCACTGTCTGACCTGCGCT GCAATCTGGCCTGCACGCCCCCACGACACCTGCATGTGGTCCGGCCTATGTCTCACTACACCACCCCCATGGTGC TCCAGCAGGCAGCCATTCCCATACAGATCAATGTGGGAACCACTGTGACCATGACAGGAAATGGGACTCGGCCCC CCCCAACTCCCAATGCAGAGGCACCTCCCCCTGGTCCTGGGCAGGCCTCATCCGTGGCTCCGTCTTCTACCAATG GGATTTCCCACCAGAGTGTGGAACCCGTGGTCATGATGCACATGAACATTCAAGATTCTGGCACACAGCCTGGTG GTGTTCCGAGTGCTCCCACTGGCCCCCTGGGACCCCCTGGTCATGGCCAAACCCTGGGACAGCAGGTGCCAGGCT TCCCAACAGCTCCAACCCGGGTGGTGATTGCCCGGCCCACTCCTCCACAGGCTCGGCCTTCCCATCCTGGAGGGC CCCCAGTCTCTGGGACACTGCAGGGCGCCGGTCTGGGTACCAATGCCTCGTTGGCCCAGATGGTGAGCGGCCTTG TGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGGCTCAGGGGACCCCAGGTATGGCTCCACCGCCAGCCCCTGCCA CTGCTTCTGCCAGTGCTGGCACCACCAACACACACACACGCTGCCCGCTCCTGGGGGGGCCTGCCCAGCCTC CACCCACCCTCAACCCTCCATGGCTGATCTTCAGTTCTCTCAGCTTCTGGGGAACCTGCTAGGGCCTGCAGGGC CAGGGGCTGGAGGGTCTGGTGTGGCTTCTCCCACCATCACTGTGGCGATGCCTGGTGTCCCTGCCTTTCTCCAAG GCATGACTGCTCTTGCAGGCAACACAGACAGCCCCTCCACCACCCCCCACCTCCCACCCCCCCACCACCTGCCC CAGAGCAGCAGACCATGCCCCCACCAGGCTCCCCTTCTGGTGGCGCAGGGAGTCCTGGAGGCCTGGGTCTTGAGA GCCTGTCACCGGAGTTTTTTACCTCAGTGGTGCAGGGTGTGCTCAGCTCCCTGCTGGGGCTCCCTGGGGGCTCGGG CTGGCAGCAGTGAAAGTATTGCTGCCTTCATACAACGCCTCAGTGGATCCAGCAACATCTTTGAGCCTGGAGCTG ATGGGGCCCTTGGATTCTTTGGGGCCTTGCTTTCTCTTCTGTGCCAGAACTTCTCTATGGTGGACGTAGTGATGC TTCTCCATGGGCATTTCCAGCCACTACAACGGCTCCAGCCCCAGCTGCGATCCTTCTTCCACCAGCACTACCTGG GTGGTCAGGAGCCCACACCCAGTAACATCCGGATGGCAACCCACACTTGATCACGGGGCTAGAAGAGTATGTGC GGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAGGTGTGGACATCATCCGGACAAACCTGGAATTTCTCCAAGAGC AGTTTAATAGCATTGCTGCGCATGTGCTGCATTGCACAGATAGTGGATTTGGGGCCCGGTTGCTGGAGTTGTGTA ACCAAGGCCTGTTTGAATGCCTGGCCCTAAACCTGCACTGCTTGGGGGGACAGCAGATGGAGCTTGCTGCTGTTA TGAGGCTTCAGGTGGTACTGGAGCACATGCCTGTAGGCCCTGATGCCATTCTCAGATACGTTCGCAGGGTTGGTG ATCCCCCCAGCCACTTCCTGAGGAGCCAATGGAAGTTCAGGGAGCAGAAAGAGCTTCCCCTGAGCCTCAGCGGG AGAATGCTTCCCCAGCCCCTGGAACAACAGCAGAAGAGGCCATGTCCCGAGGTCCACCTCCTGCTCCTGAGGGGG GCTCCCGGGATGAACAGGATGGAGCTTCAGCTGAGACAGAACCTTGGGCAGCTGCAGTCCCCCCAGAATGGGTCC CTATTATCCAGCAGGACATTCAGAGCCAGCGGAAGGTGAAACCGCAGCCCCCTCTGAGTGATGCCTACCTCAGTG GTATGCCTGCCAAGAGACGCAAGACGATGCAGGGTGAGGGCCCCCAGCTGCTTCTCTCAGAGGCTGTGAGCCGGG CAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGAGCCCCGAGAGCCTGAGCCGGGACCTGGAGGCACCAGAGGTTC AGGAGAGCTACAGGCAGCAGCTCCGGTCTGATATACAAAAACGACTGCAGGAAGACCCCAACTACAGTCCCCAGC

### 2150/6881 FIGURE 1977B

WO 2004/030615 PCT/US2003/028547

### FIGURE 1978

## FIGURE 1979A

CCCTAGGCCCGGGTCCCGGATCCCCGCCACCCGGCCAGGCTCTGGCACGTTTTGGGGGAGGTGCCTGCAGGACC CAACATACTCAATGAGCTTCCAGCGCAATGTCCGGTCGCTCGGGGCCGACTGCCAAGGGAAAGGATGGAAAGAAG TATTCCTCGCTCAACCTGTTTGATACGTATAAGGGCAAGTCCTTAGAGATCCAGAAACCCGCTGTTGCCCCTCGC CATGGCCTGCAGAGTCTCGGGAAAGTTGCCATTGCCCGGCGTATGCCACCTCCAGCCAACCTTCCAAGCCTGAAA CAGTCCGACCCCAAGAGTTCCGATGCCTCAACCGCTCAGCCGCCGGAATCGCAGCCACTGCCGGCTTCACAGACG CCTGCCTCCAACCAGCCGAAACGACCCCCAGCAGCCCCCGAGAACACTCCTTTGGTTCCAAGCGGGGTAAAGTCC TGGGCACAAGCCAGCGTCACCCATGGAGCACATGGAGATGGTGGAAGGGCATCAAGCCTACTGTCACGATTCTCT CGAGAGGAATTTCCGACCCTGCAGGCGGCTGGCGACCAGGACAAGGCTGCCAAGGAAAGGGAGTCTGCCGAACAG TCGTCTGGGCCCGGACCAAGCCTCCGCCCCAAAATTCTACAACTTGGAGGGACGGAGGTGGGCGTGGCCCTGAT GAGCTGGAGGGCCCGGACTCCAAACTTCATCATGGTCATGATCCCCGGGGTGGGCTACAGCCTTCAGGCCCACCC CAGTTCCCTCCCTACCGCGGAATGATGCCGCCTTTCATGTATCCCCCATATCTCCCGTTCCCTCCGCCCTATGGA  $\tt CCCCAGGGGCCTTACCGATACCCCACTCCTGATGGGCCCAGCCGTTTTCCCCGTGTGCGGGCCCCCGAGGCTCA$ GGGCCACCAATGCGCTTAGTAGAGCCTGTGGGTCGTCCCTCTATTCTCAAAGAGGATAATCTCAAAGAGTTTGAT GAGGAACGGCCCCTGAAGCAGATGGCAAAAAGGGCAACTCCCCCAACAGCGAACCGCCCACTCCTAAGACGGCC TGGGCAGAAACCTCTCGGCCTCCAGAGACAGAGCCGGGACCTCCTGCCCCAAAGCCTCCCCTACCCCCTGGGGAC TACCCAGATCGTGGGGGTCCTCCCTGCAAGCCCCCAGCACCTGAAGATGAGGATGAGGCATGGCGGCAGCGACGA AAGCAGTCGTCATCTGAGATTTCCCTGGCAGTGGAGCGGGCCCGGCGACGCGAGAAGAAGAGAGCGGCGCATG CAAGAAGAGCGCCGGGCAGCCTGTGCTGAGAAGCTCAAGCGACTCGATGAAAAGTTTGGGGCACCTGACAAGCGG CTCAAAGCAGAGCCTGCTGCCCCACCTGCTGCCCCTTCTACCCCAGCTCCACCACCTGCAGTCCCTAAAGAACTC CCTGCCCAATCTACTCCTACTCCAGGTGTGGCTGCGGCTCCCACTCTGGTGAGTGGTGGTGGCAGTACCAGTAGC ACCAGCAGTGGCAGCTTCGAAGCCAGCCCAGTGGAACCACCACTGCCCTCAAAAGAGGGTCCTGAACCACCAGAA GAGGTTCCTCCTCCTACCACACCCCCAGTTCCAAAGGTGGAACCCAAGGGTGATGGGATTGGTCCCACCCGCCAG CCCCCTAGTCAGGGCTTGGGCTACCCCAAATATCAGAAGTCGTTGCCTCCTCGTTTCCAGCGGCAGCAGCAGGAG CAGCTCCTGAAGCAGCAGCAGCACCAGTGGCAGCAGCATCAACAGGGCTCTGCCCCTCCTACCCCAGTGCCC TATGTGGACCCCGGCTCCTCCAGGGTCGTCCCCCTCTAGACTTCTACCCTCTGGTGTGCATCCCTCTGGCCTA GTTCCCCGAGAGCGTTCAGACAGTGGGGGCTCAAGCTCAGAGCCATTTGACCGTCATGCACCTGCTATGTTACGG GAACGGGGCACTCCACCGGTGGATCCAAAGTTGGCCTGGGTAGGAGATGTCTTCACCGCCACACCCGCTGAACCC CGCCCACTTACCTCACCTCTGCGCCAGGCTGCGGATGAGGATGACAAGGGGGATGAGGAGCGAGACTCCTCCAGTA CCTCCCCACCACCCTATCTGGCCAGTTATCCAGGCTTTCCTGAGAATGGAGCCCCTGGGCCCCCAATCTCTCGC TTTCCTCTGGAGGAACCAGGGCCCCGTCCACTCCCCTGGCCCCCAGGCAGTGATGAAGTGGCCAAGATACAAACT CCACCACCAAGAAGGAGCCCCCTAAGGAGGAGACTGCACAGCTGACGGGGCCCAGAAGCAGGCCGAAAGCCTGCC CGTCCAGGGAGCAGTCGTCGTGGAATCCCTCCAGAGGAGCCAGGGGCCCCACCCCGCCGGGCTGGGCCTATAAAG AAACCTCCACCACCTACAAAAGTAGAAGAGCTGCCTCCCAAGCCCCTCGAACAGGGGGGATGAAACCCCCAAACCC TCCCCTGCCCAAGGCTTCGGAGGGACTATTCGTATGAAAGAGTGGGTCCTACCTCTTGCCGGGGTCGGGGCCGA GGCGAGTATTTTGCCAGAGGGAGGGGTTTTCGGGGGACCTATGGGGGACGAGGGCGGGAGCCCGAAGCCGGGAA TTCCGCAGTTACCGAGAGTTTCGAGGAGATGATGGGCGTGGAGGTGGGACAGGGGGACCAAACCACCCTCCTGCT CCCCGAGGCCGCACTGCCAGCGAGACACGGAGCGAGGGTTCAGAGTATGAGGAAATCCCCAAGCGGCGCCGGCAG CGGGGCTCAGAAACAGGCAGCGAGACCCATGAGAGTGATCTGGCTCCTTCAGACAAGGAGGCTCCCACACCCAAG GAGGGAACACTCACCCAGGTCCCTCTCGCTCCCCCACCACCAGGAGCCCCACCTTCACCAGCCCCAGCCCGCTTC ACTGCCCGGGGTGGCCAGTCTTCACTCCCAGAGGGGTGCCATCTCGCCGGGGCCGAGGAGGAGGAGGCCCCCT

#### 2153/6881 FIGURE 1979B

CCTCAAGTTTGCCCAGGCTGGAGCCCTCCAGCCAAGTCTCTGGCTCCCAAGAAACCTCCCACAGGCCCTTTGCCA CCAAGTAAGGAGCCTTTGAAAGAGAAGTTGATCCCAGGGCCTCTGTCCCCTGTGGCGCGCGGAGGCAGCAATGGA GGTAGCAATGTGGGCATGGAAGATGGGGAGCGACCCCGAAGGAGGCGACATGGGAGGGCTCAGCAGCAGGATAAA CTTCCAGCCTCCGCTCCTGCACCTGAGGAGGCCCTCACAACAGTCACAGTGGCCCCAGCACCTCGCCGGGCAGCT GCCAAGTCTCCTGATCTGTCAAACCAGAACTCAGACCAAGCCAATGAGGAATGGGAGACTGCATCAGAGAGCAGT GACTTCACCAGTGAGCGCCGAGGGGACAAAGAGGCCACCCCACCAGTACTGCTGACACCCAAGGCTGTGGGAACT CCTGGGGGAGGTGGAGCCGTACCAGGTATTTCAGCCATGTCCCGCGGAGATCTGAGCCAGAGAGCCAAG GATTTGAGTAAACGGAGCTTCTCAAGTCAGCGGCCAGGCATGGAACGGCAGAATCGGCGCCCTGGCCCAGGGGGC GACAAGAGGAGCTGGCCCTCTCCCAAGAACCGAAGTCGTCCTCCAGAGGAGCGTCCCCCGGGGCTTCCCCTGCCT CCCCACCTCCAGCAGTTCTGCTGTCTTCCGCCTGGACCAAGTTATCCACAGCAACCCTGCTGGCATCCAACAG GCTCTGGCCCAGCTTAGTAGCCGTCAAGGGAGTGTAACTGCACCAGGGGGTCATCCAAGGCACAAGCCTGGGCCT CCCCAAGCCCCTCAGGGCCCCTCTCCTAGGCCCCCAACCCGATACGAGCCCCAGAGGGTCAACAGCGGCCTCAGT AGTCCCTTTCCCCCTAAACGTCGGGAGCGGCCTCCCAGAAAACCAGAGCTGCTACAGGAGGAATCTTTGCCACCT CCTCATAGCTCTGGATTCTTGGGCTCTAAGCCTGAGGGCCCAGGCCCTCAGGCAGAGTCCAGAGATACAGGCACA GAGGCCCTGACCCCTCACATCTGGAACCGTTTACATACTGCCACTAGCCGAAAGAGTTACCGGCCCAGCTCCATG GCAGCAGAGGGACCCCCAAGAGGCCTGGAGGCTCCTCACCCCTGAATGCTGTTCCTTGTGAGGGTCCACCTGGC TCTGAACCTCCTAGGAGACCACCACCTGCCCCCACGATGGGGACAGAAAGGAGCTGCCCCGGGAGCAGCCTCTG CCCCTGGCCCCATTGGCACAGAACGATCACAGCATACAGACCGAGGCACAGAGCCTGGCCCCATTCGGCCATCC CATCGACCTGGTCCCCAGTCCAGTTTGGCACTAGTGACAAGGACTCAGACTTACGCCTAGTGGTAGGAGACAGC TTGAAAGCAGAGAAGGAGCTAACAGCATCAGTCACTGAGGCCATTCCTGTATCACGAGACTGGGAGCTGCTTCCC AGTGCTGCTGCTGAGCCACAATCCAAGAACCTGGATTCTGGGCACTGTGTCCCGGAGCCCAGCTCCTCA GGCCAGCGCCTGTATCCTGAGGTTTTCTATGGCAGTGCTGGGCCTTCCAGTTCTCAGATCTCTGGGGGAGCCATG GACTCTCAATTACATCCAAACAGTGGAGGCTTCCGCCCTGGGACACCCTCACTGCACCCTTACAGATCACAGCCC CTATACCTACCCCCGGCCCAGCCCTCCCTCAGCACTGCTCTCTGGGGTAGCTCTCAAGGGCCAGTTTCTGGAT TTCTCCACAATGCAAGCTACAGAGCTGGGGAAGTTGCCGGCTGGAGGAGTTCTCTACCCTCCACCTTCCTCCTC TACTCTCCGGCTTTCTGCCCAGTCCTTTGCCTGACACATCGTTGCTTCAGGTACGCCAGGATCTGCCATCCCCT TCGGATTTTTATTCTACTCCTCTGCAGCCTGGTGGCCAAAGTGGCTTTCTCCCTTCAGGGGCTCCTGCCCAGCAG ATGCTTCTACCCATGGTAGACTCACAGCTGCCTGTGGTGAACTTTGGCTCCCTGCCGCCACCACCACCTCCTGCC CCACCTCCCTTTCTCTGTTACCTGTGGGCCCTGCTCTGCAGCCCCCAGCCTGGCTGTGCGGCCCCCACCTGCT CCTGCTACTCGGGTGCTGCCTTCACCTGCCAGGCCCTTCCCCGCTAGCTTGGGGCGAGCAGAGCTGCATCCAGTG GAACTAAAGCCGTTCCAGGATTATCAAAAACTGAGCAGCAACCTTGGGGGACCTGGATCATCACGGACTCCCCCA ACTGGAAGGTCCTTCTCTGGCCTCAATTCCCGTCTCAAGGCCACGCCTTCCACCTACAGTGGAGTCTTCCGCACC CAGCGCGTCGACCTTTACCAGCAGGCCTCCCCACCAGATGCCCTGCGCTGGATACCTAAGCCTTGGGAGCGGACA GGGCTGCCACCTCGAGAAGGGCCCTCCCGACGGGCAGAGGAGCCTGGGTCCCGAGGGGACAAGGAGCCTGGGTTG CCCCCACCCGCTGAGGGAGTTCCTCTTGCCCCCTACCCCGGGGCTTGTATATAGATTATAAATATATAAGGGG GAAAGGGGTGGGCGGGGGGTTGTGGGGCCTGGGGCCTCACTTCCCCTCCCCCTTCCCCTGGTCCCCTGTC CCTGGGGCTGTTTGTTAAAAAAGGGTAATAAAAGGATTT

### FIGURE 1980

MSDRSGPTAKGKDGKKYSSLNLFDTYKGKSLEIQKPAVAPRHGLQSLGKVAIARRMPPPANLPSLKAENKGNDPN VSLVPKDGTGWASKQEQSDPKSSDASTAQPPESQPLPASQTPASNQPKRPPAAPENTPLVPSGVKSWAQASVTHG AHGDGGRASSLLSRFSREEFPTLQAAGDQDKAAKERESAEQSSGPGPSLRPONSTTWRDGGGRGPDELEGPDSKL HHGHDPRGGLQPSGPPQFPPYRGMMPPFMYPPYLPFPPPYGPQGPYRYPTPDGPSRFPRVAGPRGSGPPMRLVEP VGRPSILKEDNLKEFDQLDQENDDGWAGAHEEVDYTEKLKFSDEEDGRDSDEEGAEGHRDSQSASGEERPPEADG KKGNSPNSEPPTPKTAWAETSRPPETEPGPPAPKPPLPPGDYPDRGGPPCKPPAPEDEDEAWRQRRKQSSSEISL AVERARRREEEERRMQEERRAACAEKLKRLDEKFGAPDKRLKAEPAAPPAAPSTPAPPPAVPKELPAPPAPPPA SAPTPEKEPEEPAQAPPAQSTPTPGVAAAPTLVSGGGSTSSTSSGSFEASPVEPQLPSKEGPEPPEEVPPPTTPP VPKVEPKGDGIGPTRQPPSQGLGYPKYQKSLPPRFQRQQQEQLLKQQQOHQWQQHQQGSAPPTPVPPSPPQPVTL GAVPAPQAPPPPPKALYPGALGRPPPMPPMNFDPRWMMIPPYVDPRLLOGRPPLDFYPPGVHPSGLVPRERSDSG GSSSEPFDRHAPAMLRERGTPPVDPKLAWVGDVFTATPAEPRPLTSPLRQAADEDDKGMRSETPPVPPPPPYLAS YPGFPENGAPGPPISRFPLEEPGPRPLPWPPGSDEVAKIQTPPPKKEPPKEETAQLTGPEAGRKPARGVGSGGQG PPPPRRESRTETRWGPRPGSSRRGIPPEEPGAPPRRAGPIKKPPPPTKVEELPPKPLEQGDETPKPPKPDPLKIT KGKLGGPKETPPNGNLSPAPRLRRDYSYERVGPTSCRGRGEGEYFARGRGFRGTYGGRGARSREFRSYREFRG DDGRGGGTGGPNHPPAPRGRTASETRSEGSEYEEIPKRRRQRGSETGSETHESDLAPSDKEAPTPKEGTLTQVPL APPPPGAPPSPAPARFTARGGRVFTPRGVPSRRGRGGGRPPPQVCPGWSPPAKSLAPKKPPTGPLPPSKEPLKEK LIPGPLSPVARGGSNGGSNVGMEDGERPRRRHGRAQQQDKPPRFRRLKQERENAARGSEGKPSLTLPASAPAPE EALTTVTVAPAPRRAAAKSPDLSNQNSDQANEEWETASESSDFTSERRGDKEAPPPVLLTPKAVGTPGGGGGGAV PGISAMSRGDLSQRAKDLSKRSFSSQRPGMERQNRRPGPGGKAGSSGSSSGGGGGGGGGGGTGPGRGDKRSWPSPK NRSRPPEERPPGLPLPPPPPSSSAVFRLDQVIHSNPAGIQQALAQLSSRQGSVTAPGGHPRHKPGPPQAPQGPSP RPPTRYEPQRVNSGLSSDPHFEEPGPMVRGVGGTPRDSAGVSPFPPKRRERPPRKPELLQEESLPPPHSSGFLGS KPEGPGPQAESRDTGTEALTPHIWNRLHTATSRKSYRPSSMEPWMEPLSPFEDVAGTEMSQSDSGVDLSGDSQVS SGPCSQRSSPDGGLKGAAEGPPKRPGGSSPLNAVPCEGPPGSEPPRRPPPAPHDGDRKELPREOPLPPGPIGTER SQHTDRGTEPGPIRPSHRPGPPVQFGTSDKDSDLRLVVGDSLKAEKELTASVTEAIPVSRDWELLPSAAASAEPQ SKNLDSGHCVPEPSSSGQRLYPEVFYGSAGPSSSQISGGAMDSQLHPNSGGFRPGTPSLHPYRSQPLYLPPGPAP PSALLSGVALKGQFLDFSTMQATELGKLPAGGVLYPPPSFLYSPAFCPSPLPDTSLLQVRQDLPSPSDFYSTPLQ PGGQSGFLPSGAPAQQMLLPMVDSQLPVVNFGSLPPAPPPAPPPLSLLPVGPALQPPSLAVRPPPAPATRVLPSP ARPFPASLGRAELHPVELKPFQDYQKLSSNLGGPGSSRTPPTGRSFSGLNSRLKATPSTYSGVFRTQRVDLYQQA SPPDALRWIPKPWERTGLPPREGPSRRAEEPGSRGDKEPGLPPPR

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# FIGURE 1981A

CAACATACTCAATGAGCTTCCAGCGCAATGTCCCGATCGCTCGGGGCCCGACTGCCAAGGGAAAGGATGGAAAGAAG TATTCCTCGCTCAACCTGTTTGATACGTATAAGGGCAAGTCCTTAGAGATCCAGAAACCCGCTGTTGCCCCTCGC CATGGCCTGCAGAGTCTCGGGAAAGTTGCCATTGCCCGGCGTATGCCACCTCCAGCCAACCTTCCAAGCCTGAAA CAGTCCGACCCCAAGAGTTCCGATGCCTCAACCGCTCAGCCGCCGGAATCGCAGCCACTGCCGGCTTCACAGACG CCTGCCTCCAACCAGCCGAAACGACCCCCAGCAGCCCCGAGAACACTCCTTTGGTTCCAAGCGGGGTAAAGTCC TGGGCACAGCCAGCGTCACCCATGGAGCACATGGAGATGGTGGAAGGGCATCAAGCCTACTGTCACGATTCTCT CGAGAGGAATTTCCGACCCTGCAGGCGGCTGGCGACCAGGACAGGCTGCCAAGGAAAGGGAGTCTGCCGAACAG TCGTCTGGGCCCGGACCAAGCCTCCGCCCCCAAAATTCTACAACTTGGAGGGACGGAGGTGGGCGTGGCCCTGAT GAGCTGGAGGCCCGGACTCCAAACTTCATCATGGTCATGATCCCCGGGGTGGGCTACAGCCTTCAGGCCCACCC CAGTTCCCTCCCTACCGCGGAATGATGCCGCCTTTCATGTATCCCCCATATCTCCCGTTCCCTCCGCCCTATGGA CCCCAGGGGCCTTACCGATACCCCACTCCTGATGGGCCCAGCCGTTTTCCCCGTGTGGCGGGCCCCCGAGGCTCA GGGCCACCAATGCGCTTAGTAGAGCCTGTGGGTCGTCCCTCTATTCTCAAAGAGGATAATCTCAAAGAGTTTGAT CAGTTGGATCAGGAGAATGATGGTTGGGCAGGGGCCCATGAAGAGGTTGACTACACTGAAAAGCTCAAGTTC GAGGAACGGCCCCTGAAGCAGATGGCAAAAAGGGCAACTCCCCCAACAGCGAACCGCCCACTCCTAAGACGGCC TGGGCAGAAACCTCTCGGCCTCCAGAGACAGAGCCGGGACCTCCTGCCCCAAAGCCTCCCCTACCCCCACCTCAC CCTGAAGATGAGGATGAGGCATGGCGGCAGCGAAAGCAGTCGTCATCTGAGATTTCCCTGGCAGTGGAGCGG GCCCGGCGACGCGAGAAGAAGAGGAGCGCGCATGCAAGAAGAGCGCCGGGCAGCCTGTGCTGAGAAGCTCAAG CGACTCGATGAAAAGTTTGGGGCACCTGACAAGCGGCTCAAAGCAGAGCCTGCTGCCCCACCTGCTGCCCCTTCT ACCCCAGCTCCACCACCTGCAGTCCCTAAAGAACTCCCTGCACCTCCAGCTCCAGCATCAGCCCCAACA CCAGAGAAAGAACCTGAAGAGCCAGCACAGGCCCCTCCTGCCCAATCTACTCCTACTCCAGGTGTGGCTGCGGCT CAACTGCCCTCAAAAGAGGGTCCTGAACCACCAGAAGAGGTTCCTCCTCCTACCACACCCCCAGTTCCAAAGGTG GAACCCAAGGGTGATGGGATTGGTCCCACCCGCCAGCCCCTAGTCAGGGCTTGGGCTACCCCAAATATCAGAAG TCGTTGCCTCCTCGTTTCCAGCGGCAGCAGCAGCAGCAGCTCCTGAAGCAGCAGCAGCACCAGTGGCAGCAG CATCAACAGGGCTCTGCCCCTACCCCAGTGCCCCCATCACCACCACAGCCTGTGACCCTGGGGGGCTGTGCCA ATGAACTTTGATCCCCGATGGATGATGATTCCTCCTTATGTGGACCCCCGGCTCCTCCAGGGTCGTCCCCCTCTA GACTTCTACCCTCCTGGTGTGCATCCCTCTGGCCTAGTTCCCCGAGAGCGTTCAGACAGTGGGGGCTCAAGCTCA GAGCCATTTGACCGTCATGCACCTGCTATGTTACGGGAACGGGGCACTCCACCGGTGGATCCAAAGTTGGCCTGG GTAGGAGATGTCTTCACCGCCACACCCGCTGAACCCCGCCCACTTACCTCACCTCTGCGCCAGGCTGCGGATGAG GATGACAAGGGGATGAGGAGCGAGACTCCTCCAGTACCTCCCCCACCACCCTATCTGGCCAGTTATCCAGGCTTT CCTGAGAATGGAGCCCCTGGGCCCCCAATCTCTCGCTTTCCTCTGGAGGAACCAGGGCCCCGTCCACTCCCCTGG CCCCCAGGCAGTGATGAAGTGGCCAAGATACAAACTCCACCACCAAGAAGGAGCCCCCTAAGGAGGAGACTGCA CAGCTGACGGGGCCAGAAGCCGGAAAGCCTGCCCGCGGAGTCGGGAGTGGAGGCCAGGGCCCCCCACCACCA CGCAGAGAGAGTCGCACAGAGACCCGCTGGGGCCCTCGTCCAGGGAGCAGTCGTCGTGGAATCCCTCCAGAGGAG CCAGGGGCCCCACCCGCGGGCTGGGCCTATAAAGAAACCTCCACCACCTACAAAAGTAGAAGAGCTGCCTCCC AAGCCCCTCGAACAGGGGGATGAAACCCCCAAACCCCCAAAGCCAGACCCACTCAAGATAACCAAGGGGAAGCTA GGGGGCCCCAAGGAGCCCCACCCAATGGAAATCTTTCCCCTGCCCCAAGGCTTCGGAGGGACTATTCGTATGAA TATGGGGGACGAGGCGGGAGCCCGAAGCCGGGAATTCCGCAGTTACCGAGAGTTTCGAGGAGATGATGGGCGT GGAGGTGGGACAGGGGGACCAAACCACCCTCCTGCTCCCGAGGCCGCACTGCCAGCGAGACACGGAGCGAGGGT TCAGAGTATGAGGAAATCCCCAAGCGGCGCCGGCAGCGGGCTCAGAAACAGGCAGCGAGACCCATGAGAGTGAT CCAGGAGCCCCACCTTCACCAGCCCCAGCCCGCTTCACTGCCCGGGGTGGGCGAGTCTTCACTCCCAGAGGGGTG

### 2156/6881 FIGURE 1981B

CCATCTCGCCGGGGCCGAGGAGGAGGAGGCCCCCTCCTCAAGTTTGCCCAGGCTGGAGCCCTCCAGCCAAGTCT CTGGCTCCCAAGAAACCTCCCACAGGCCCTTTGCCACCAAGTAAGGAGCCTTTGAAAGAGAAGTTGATCCCAGGG CCTCTGTCCCCTGTGGCGCGGGGGGCAGCAATGGAGGTAGCAATGTGGGCATGGAAGATGGGGAGCGACCCCGA AGGAGGCGACATGGGAGGGCTCAGCAGCAGGATAAACCGCCTCGTTTCCGGAGGCTGAAGCAGGAACGGGAGAAT GCCGCAAGGGGGTCTGAGGGCAAGCCCTCCCTAACCCTTCCAGCCTCCGCACCTGAGGAGGCCCTCACA ACAGTCACAGTGGCCCCAGCACCTCGCCGGGCAGCTGCCAAGTCTCCTGATCTGTCAAACCAGAACTCAGACCAA GCCAATGAGGAATGGGAGACTGCATCAGAGAGCAGTGACTTCACCAGTGAGCGCCGAGGGGACAAAGAGGCACCC GCCATGTCCCGCGGAGATCTGAGCCAGAGAGCCAAGGATTTGAGTAAACGGAGCTTCTCAAGTCAGCGGCCAGGC ATGGAACGCAGAATCGGCGCCCTGGCCCAGGGGGCAAGGCTGGCAGCAGTGGCAGCAGTGGAGGAGGCGGT GGGGGTCCTGGAGGAAGGACCGGGCCAGGACGAGGCGACAAGAGGAGCTGGCCCTCTCCCAAGAACCGAAGTCGT CCTCCAGAGGAGCGTCCCCGGGGCTTCCCCTGCCTCCCCACCTCCCAGCAGTTCTGCTGTCTTCCGCCTGGAC CAAGTTATCCACAGCAACCCTGCTGGCATCCAACAGGCTCTGGCCCAGCTTAGTAGCCGTCAAGGGAGTGTAACT GCACCAGGGGGTCATCCAAGGCACAAGCCTGGGCCTCCCCAAGCCCCTCAGGGCCCCTCTCCTAGGCCCCCAACC CGATACGAGCCCCAGAGGGTCAACAGCGGCCTCAGTTCTGACCCCCACTTTGAGGAGCCGGGGCCAATGGTGAGA GGGGTGGGTGGGACTCCTCGGGACTCTGCCGGGGTTAGTCCCTTTCCCCCTAAACGTCGGGAGCGGCCTCCCAGA AAACCAGAGCTGCTACAGGAGGAATCTTTGCCACCTCCTCATAGCTCTGGATTCTTGGGCTCTAAGCCTGAGGGC CCAGGCCCTCAGGCAGAGTCCAGAGATACAGGCACAGAGGCCCTGACCCCTCACATCTGGAACCGTTTACATACT GCTGGCACAGAAATGAGTCAGTCTGACAGTGGGGTGGACCTGAGTGGGGATTCTCAGGTGTCATCAGGTCCCTGC AGCCAGCGAAGTTCCCCTGATGGAGGACTCAAGGGGGCAGCAGAGGGACCCCCCAAGAGGCCTGGAGGCTCCTCA CCCCTGAATGCTGTTCCTTGTGAGGGTCCACCTGGCTCTGAACCTCCTAGGAGACCACCACCTGCCCCCACGAT GGGGACAGAAAGGAGCTGCCCGGGAGCAGCCTCTGCCCCCTGGCCCCATTGGCACAGAACGATCACAGCATACA GACCGAGGCACAGAGCCTGGCCCCATTCGGCCATCCCATCGACCTGGTCCCCAGTCCAGTTTGGCACTAGTGAC AAGGACTCAGACTTACGCCTAGTGGTAGGAGACAGCTTGAAAGCAGAGAAGGAGCTAACAGCATCAGTCACTGAG GCCATTCCTGTATCACGAGACTGGGAGCTGCTTCCCAGTGCTGCTGCTGCTGAGCCACAATCCAAGAACCTG GATTCTGGGCACTGTGTCCCGGAGCCCAGCTCCTCAGGCCAGCGCCTGTATCCTGAGGTTTTCTATGGCAGTGCT GGGCCTTCCAGTTCTCAGATCTCTGGGGGAGCCATGGACTCTCAATTACATCCAAACAGTGGAGGCTTCCGCCCT CTCTCTGGGGTAGCTCTCAAGGGCCAGTTTCTGGATTTCTCCACAATGCAAGCTACAGAGCTGGGGAAGTTGCCG GCTGGAGGAGTTCTCTACCCTCCACCTTCCTTCCTCTACTCTCCGGCTTTCTGCCCCAGTCCTTTGCCTGACACA TCGTTGCTTCAGGTACGCCAGGATCTGCCATCCCCTTCGGATTTTTATTCTACTCCTCTGCAGCCTGGTGGCCAA AGTGGCTTTCTCCCTTCAGGGGCTCCTGCCCAGCAGATGCTTCTACCCATGGTAGACTCACAGCTGCCTGTGGTG **AACTTTGGCTCCCTGCCGCCAGCACCACCTCCTGCCCCACCTCCCCTTTCTCTGTTACCTGTGGGCCCTGCTCTG** CAGCCCCCAGCCTGCTGCGGCCCCCACCTGCTCCTGCTACTCGGGTGCTGCCTTCACCTGCCAGGCCCTTC CCCGCTAGCTTGGGGCGAGCAGAGCTGCATCCAGTGGAACTAAAGCCGTTCCAGGATTATCAAAAACTGAGCAGC AACCTTGGGGGACCTGGATCATCACGGACTCCCCCAACTGGAAGGTCCTTCTCTGGCCTCAATTCCCGTCTCAAG GCCACGCCTTCCACCTACAGTGGAGTCTTCCGCACCCAGCGGTCGACCTTTACCAGCAGGCCTCCCCACCAGAT GCCCTGCGCTGGATACCTAAGCCTTGGGAGCGGACAGGGCTGCCACCTCGAGAAGGGCCCTCCCGACGGCCAGAG GAGCCTGGGTCCCGAGGGGACAAGGAGCCTGGGTTGCCCCCACCCCGCTGAGGGAGTTCCTCTTGCCCCCTACCC CACTTCCCCTCCCCCTTCCCCTGGTCCCTGTCCCTGGGGCTGTTTGTTAAAAAAGAGTAATAAAAGGATTT

MSDRSGPTAKGKDGKKYSSLNLFDTYKGKSLEIQKPAVAPRHGLQSLGKVAIARRMPPPANLPSLKAENKGNDPN VSLVPKDGTGWASKQEQSDPKSSDASTAQPPESQPLPASQTPASNQPKRPPAAPENTPLVPSGVKSWAQASVTHG  $\mathtt{AHGDGGRASSLLSRFSREEFPTLQAAGDQDKAAKERESAEQSSGPGPSLRPQNSTTWRDGGGRGPDELEGPDSKL}$ HHGHDPRGGLQPSGPPQFPPYRGMMPPFMYPPYLPFPPPYGPQGPYRYPTPDGPSRFPRVAGPRGSGPPMRLVEP VGRPSILKEDNLKEFDQLDQENDDGWAGAHEEVDYTEKLKFSDEEDGRDSDEEGAEGHRDSQSASGEERPPEADG KKGNSPNSEPPTPKTAWAETSRPPETEPGPPAPKPPLPPPHRGPAGNWGPPGDYPDRGGPPCKPPAPEDEDEAWR QRRKQSSSEISLAVERARRREEEEERRMQEERRAACAEKLKRLDEKFGAPDKRLKAEPAAPPAAPSTPAPPPAVP KELPAPPAPPPASAPTPEKEPEEPAQAPPAQSTPTPGVAAAPTLVSGGGSTSSTSSGSFEASPVEPQLPSKEGPE PPEEVPPPTTPPVPKVEPKGDGIGPTRQPPSQGLGYPKYQKSLPPRFQRQQQEQLLKQQQQHQWQQHQQGSAPPT PVPPSPPQPVTLGAVPAPQAPPPPPKALYPGALGRPPPMPPMNFDPRWMMIPPYVDPRLLQGRPPLDFYPPGVHP  ${\tt SGLVPRERSDSGGSSSEPFDRHAPAMLRERGTPPVDPKLAWVGDVFTATPAEPRPLTSPLRQAADEDDKGMRSET}$ PPVPPPPPYLASYPGFPENGAPGPPISRFPLEEPGPRPLPWPPGSDEVAKIQTPPPKKEPPKEETAQLTGPEAGR KPARGVGSGGQGPPPPRRESRTETRWGPRPGSSRRGIPPEEPGAPPRRAGPIKKPPPPTKVEELPPKPLEQGDET PKPPKPDPLKITKGKLGGPKETPPNGNLSPAPRLRRDYSYERVGPTSCRGRGRGEYFARGRGFRGTYGGRGRGAR SREFRSYREFRGDDGRGGGTGGPNHPPAPRGRTASETRSEGSEYEEIPKRRRQRGSETGSETHESDLAPSDKEAP TPKEGTLTQVPLAPPPPGAPPSPAPARFTARGGRVFTPRGVPSRRGRGGGRPPPQVCPGWSPPAKSLAPKKPPTG  ${\tt PLPPSKEPLKEKLIPGPLSPVARGGSNGGSNVGMEDGERPRRRHGRAQQQDKPPRFRRLKQERENAARGSEGKP}$ SLTLPASAPAPEEALTTVTVAPAPRRAAAKSPDLSNQNSDQANEEWETASESSDFTSERRGDKEAPPPVLLTPKA VGTPGGGGGGAVPGISAMSRGDLSQRAKDLSKRSFSSQRPGMERQNRRPGPGGKAGSSGSSSGGGGGGPGGRTGP GRGDKRSWPSPKNRSRPPEERPPGLPLPPPPPSSSAVFRLDQVIHSNPAGIQQALAQLSSRQGSVTAPGGHPRHK PGPPQAPQGPSPRPPTRYEPQRVNSGLSSDPHFEEPGPMVRGVGGTPRDSAGVSPFPPKRRERPPRKPELLQEES LPPPHSSGFLGSKPEGPGPQAESRDTGTEALTPHIWNRLHTATSRKSYRPSSMEPWMEPLSPFEDVAGTEMSQSD  ${\tt SGVDLSGDSQVSSGPCSQRSSPDGGLKGAAEGPPKRPGGSSPLNAVPCEGPPGSEPPRRPPPAPHDGDRKELPRE}$ QPLPPGPIGTERSQHTDRGTEPGPIRPSHRPGPPVQFGTSDKDSDLRLVVGDSLKAEKELTASVTEAIPVSRDWE LLPSAAASAEPQSKNLDSGHCVPEPSSSGQRLYPEVFYGSAGPSSSQISGGAMDSQLHPNSGGFRPGTPSLHPYR SQPLYLPPGPAPPSALLSGVALKGQFLDFSTMQATELGKLPAGGVLYPPPSFLYSPAFCPSPLPDTSLLQVRQDL  ${\tt PSPSDFYSTPLQPGGQSGFLPSGAPAQQMLLPMVDSQLPVVNFGSLPPAPPPAPPPLSLLPVGPALQPPSLAVRP}$ PPAPATRVLPSPARPFPASLGRAELHPVELKPFQDYQKLSSNLGGPGSSRTPPTGRSFSGLNSRLKATPSTYSGV FRTQRVDLYQQASPPDALRWIPKPWERTGLPPREGPSRRAEEPGSRGDKEPGLPPPR

TCCCGCCGCCAACGCCGAGAACGTCGCTTTCGTCGTTACTTGTCTGCAGGACGGCTGGTCCGGGCCCAGGCCCTC  $\tt CTCCAGCGACACCCAGGCCTCGATGTAGATGCTGGGCAGCCCCCACCACTGCACCGGGCCTGTGCCCGCCACGAT$ GCCCCTGCCCTGTGCCTGCTTCGGCTCGGGGCTGACCCTGCCCACCAGGACCGCCATGGGGACACGGCACTG ATGGGAATAAAGAATAAGGATGGGGAGACCCCTGGCCAAATTTTGGGCTGGGGACCCCCTGGGATTCTGCTGAA GAGGAGGAAGAAGATGATGCCTCCAAGGAGCGGGAATGGAGACAGAAGCTCCAGGGTGAGCTGGAGGACGAGTGG CAGGAAGTCATGGGGAGGTTTGAAGGTGATGCCTCCCATGAAACCCAGGAACCTGAGTCCTTCTCAGCCTGGTCA GATCGCCTGGCCCGGGAACATGCCCAGAAGTGCCAGCAGCAGCAGCAGAAGCAGAGGGATCCTGTCGACCCCCA AAGGAGGAAGAGCTGCGTGAGAGCCGAGCCAGGAGGCGCAGGAGGCTCTAGGGGACCGAGAACCCAAGCCAACC AGGGCCGGGCCCAGGGAAGAGCACCCCAGAGGAGCGGGGAGGGGCAGCCTCTGGCGATTTGGTGATGTGCCCTGG ACATCTC

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# FIGURE 1984

ACAGGCATTTTCCAAAGGCAAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTG CGCCTGCGCTCTTGCAGCCAAGAAGGCGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATT  ${\tt TCCCTCCTTCGTCGCTGTTGCTGCCGCCATACGCGCTCTCCCTGTTTAGTT{\tt \underline{ATG}}{\tt GCAGAGAACGATGTGGACAAT}}$ GAGCTCTTGGACTATGAAGATGATGAGGTGGAGACAGCAGCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAG GATGTCAAGGGCTCCTATGTCTCCACCACAGCTCTGGCTTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGG GCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTCCAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATG GATGTCCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACAGCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAG CCAGTTACTGGGCAGGTGTCTGTGTGATGTGTCACACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATAT GAGGTGCTGAAGAAGAACTGCCCGCATATCGTCGTGGGGACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAG AGCCTCAACCTCAAACACTTAAACACTTTATTTTGGATGAATGTGATAAGATGCTTGAACAGCTCGACATGCGT CGGGATGTCCAGGAAATTTTTCGCATGACCCCCCACGAGAAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAA GAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCAATGGAGATCTTCGTGGATGATGAGACGAAGTTGACG CTGCATGGGTTGCAGCAGTACTACGTGAAACTGAAGGACAACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGAT GTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCTGTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTG GAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATGCCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTT AAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTATTTGGCCGAGGCATGGACATCGAGCGGGTGAACATT AAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGATGCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAG  ${\tt GTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCCTCCTACATTGAACAGACACGG{\color{red}{\textbf{TAG}}}{\textbf{AGACTCGCCCA}}}$ TTTTGGAATGTGACCGTCTGTCCTTCAGGAGAGACACCAGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCC CTGACAGCCCCCACCCCATGGCTTCCATCTTTTGCATCACCACCACTCCTGAACCCCCATTTCTGATTTGTCAGA 

# FIGURE 1985

MAENDVDNELLDYEDDEVETAAGGDGAEAPAKKDVKGSYVSIHSSGFRDFLLKPELLRAIVDCGFEHPSEVQHEC IPQAILGMDVLCQAKSGMGKTAVFVLATLQQLEPVTGQVSVLVMCHTRELAFQISKEYERFSKYMPNVKVAVFFG GLSIKKDEEVLKKNCPHIVVGTPGRILALARNKSLNLKHIKHFILDECDKMLEQLDMRRDVQEIFRMTPHEKQVM MFSATLSKEIRPVCRKFMQDPMEIFVDDETKLTLHGLQQYYVKLKDNEKNRKLFDLLDVLEFNQVVIFVKSVQRC IALAQLLVEQNFPAIAIHRGMPQEERLSRYQQFKDFQRRILVATNLFGRGMDIERVNIAFNYDMPEDSDTYLHRV ARAGRFGTKGLAITFVSDENDAKILNDVQDRFEVNISELPDEIDISSYIEQTR

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# FIGURE 1986

ACAGGCATTTTCCAAAGGCAAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTG  $\verb|CGCCTGCGCTCTTGCAGCCAAGAAGGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATT| \\$ TCCCTCCTTCGTCGCTGTTGCTGCCGCCATACGCGCTCTCCCTGTTTAGCTCTTCTGTTAGAAATAGTATCTTTG TTTTCCTTTGCTGTTCCTCAATCCCCTACTCTTCACCCCTTGTTTTCACCCTATTTTGCGAGAACCCATCCAGATC CCCCTTCCCTTCTCCCCTGCCGGCCCAGTTATGCCAGAGAACGATGTGGACAATGAGCTCTTGGACTATGAAGA TGATGAGGTGGAGACAGCAGCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAGGATGTCAAGGGCTCCTATGT  $\tt CTCCATCCACAGCTCTGGCTTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGGGCCATTGTCGACTGTGGCTT$ TGAGCATCCGTCAGAAGTCCAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATGGATGTCCTGTGCCAGGCCAA GTCGGGCATGGGAAAGACAGCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAGCCAGTTACTGGGCAGGTGTC TGTGCTGGTGATGTGTCACACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATATGAGCGCTTCTCTAAATACAT  $\tt CCCGCATATCGTCGTGGGGACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAGAGCCTCAACCTCAAACACAT$ TAAACACTTTATTTTGGATGAATGTGATAAGATGCTTGAACAGCTCGACATGCGTCGGGATGTCCAGGAAATTTT TCGCATGACCCCCACGAGAAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAAGAGATCCGTCCAGTCTGCCG CAAGTTCATGCAAGATCCAATGGAGATCTTCGTGGATGATGAGACGAAGTTGACGCTGCATGGGTTGCAGCAGTA CTACGTGAAACTGAAGGACAACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGATGTCCTTGAGTTCAACCAGGT GGTGATCTTTGTGAAGTCTGTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTGGAGCAGAACTTCCCAGCCAT TGCCATCCACCGTGGGATGCCCCAGGAGGAGGGCTTTCTCGGTATCAGCAGTTTAAAGATTTTCAACGACGAAT TCTTGTGGCTACCAACCTATTTGGCCGAGGCATGGACATCGAGCGGGTGAACATTGCTTTTAATTATGACATGCC TGAGGATTCTGACACCTACCTGCATCGGGTGGCCAGAGCAGGCCGGTTTGGCACCAAGGGCTTGGCTATCACATT TGTGTCCGATGAGAATGATGCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAGGTCAATATTAGTGAGCTGCC  ${\tt TGATGAGATAGACATCTCCTCCTACATTGAACAGACACGG} \underline{{\tt TAG}} {\tt AGACTCGCCCATTTTGGAATGTGACCGTCTG}$ TCCTTCAGGAGGAGGACACCAGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCCCTGACAGCCCCCACCCCATG 

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## 2162/6881 FIGURE 1987

MAENDVDNELLDYEDDEVETAAGGDGAEAPAKKDVKGSYVSIHSSGFRDFLLKPELLRAIVDCGFEHPSEVQHEC IPQAILGMDVLCQAKSGMGKTAVFVLATLQQLEPVTGQVSVLVMCHTRELAFQISKEYERFSKYMPNVKVAVFFG GLSIKKDEEVLKKNCPHIVVGTPGRILALARNKSLNLKHIKHFILDECDKMLEQLDMRRDVQEIFRMTPHEKQVM MFSATLSKEIRPVCRKFMQDPMEIFVDDETKLTLHGLQQYYVKLKDNEKNRKLFDLLDVLEFNQVVIFVKSVQRC IALAQLLVEQNFPAIAIHRGMPQEERLSRYQQFKDFQRRILVATNLFGRGMDIERVNIAFNYDMPEDSDTYLHRV ARAGRFGTKGLAITFVSDENDAKILNDVQDRFEVNISELPDEIDISSYIEQTR

AGACGCCGAG<u>ATG</u>CTGGTCATGGCGCCCCGAACCGTCCTCCTGCTGCTCTCGGCGCCCTGGCCCTGACCGAGAC CTGGGCCGGCTCCACTCCATGAGGTATTTCGACACCGCCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCAT GGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTTCAAGACCAACACACAGAC TGACCGAGAGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGCCGGGTCTCACACCCTCCAGAGCAT GTACGGCTGCGACGTGGGGCCGGACGGCGCCTCCTCCGCGGGCATAACCAGTACGCCTACGACGGCAAGGATTA CATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCGGGGGACACCGCGGGCTCAGATCACCCAGCGCAAGTGGGA GAACGGGAAGGACACGCTGGAGCGCGGACCCCCAAAGACACACGTGACCCACCACCCCATCTCTGACCATGA GGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGCGAGGA CCAAACTCAGGACACTGAGCTTGTGGAGACCAGACCAGCAGGAGATAGAACCTTCCAGAAGTGGGCAGCTGTGGT GGTGCCTTCTGGAGAAGAGCAGAGATACACATGCCATGTACAGCATGAGGGGCTGCCGAAGCCCCTCACCCTGAG ATGGGAGCCGTCTCCCAGTCCACCGTCCCCATCGTGGGCATTGTTGCTGGCCTGGCTGTCCTAGCAGTTGTGGT TGCGTGCAGCGACAGTGCCCAGGGCTCTGATGTGTCTCTCACAGCTTGAAAAGCCTGAGACAGCTGTCTTGTGAG GGACTGAGATGCAGGATTTCTTCACGCCTCCCTTTGTGACTTCAAGAGCCTCTGGCATCTCTTTCTGCAAAGGC ACCTGAATGTGTCTGCGTCCCTGTTAGCATAATGTGAGGAGGTGGAGAGACAGCCCACCCTTGTGTCCACTGTGA CCCCTGTTCCCATGCTGACCTGTGTTTCCTCCCCAG

MLVMAPRTVLLLLSAALALTETWAGSHSMRYFDTAMSRPGRGEPRFISVGYVDDTQFVRFDSDAASPREEPRAPW
IEQEGPEYWDRNTQIFKTNTQTDRESLRNLRGYYNQSEAGSHTLQSMYGCDVGPDGRLLRGHNQYAYDGKDYIAL
NEDLRSWTAADTAAQITQRKWEAARVAEQDRAYLEGTCVEWLRRYLENGKDTLERADPPKTHVTHHPISDHEATL
RCWALGFYPAEITLTWQRDGEDQTQDTELVETRPAGDRTFQKWAAVVVPSGEEQRYTCHVQHEGLPKPLTLRWEP
SSQSTVPIVGIVAGLAVLAVVVIGAVVAAVMCRRKSSGGKGGSYSQAACSDSAQGSDVSLTA

MSHRKFSTPRHGSLGFLPWKRSSRHCGKVKSFPKDDPSKPVHLTAFLGYKAGMTHIVRALEKIDLKFIDTPSKFG HGHFQTMEEKKAFMGPLKKDRIAKEEGA

# FIGURE 1992

ATTCTCCCCAGAGGCCGAGATGCGGGTCATGGCGCCCCGAGCCCTCCTCCTGCTGCTCTCGGGAGGCCTGGCCCT GACCGAGACCTGGGCCTGCTCCCACTCCATGAGGTATTTCGACACCGCCGTGTCCCGGCCCGGCCGCGGAGAGCC CCGCTTCATCTCAGTGGGCTACGTGGACGACGCCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGTCCGAGAGG GGAGCCGCGGGCGCCGTGGGTGGAGCAGGAGGGGCCGGAGTATTGGGACCGGGAGACACAGAACTACAAGCGCCA GGCACAGGCTGACCGAGTGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGACGGGTCTCACACCCT CCAGAGGATGTATGGCTGCGACCTGGGGCCCGACGGGCCCTCCTCCGCGGGTATGACCAGTCCGCCTACGACGG CAAGGATTACATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCGGGCACACCGCGGGCTCAGATCACCCAGCG ATACCTGGAGAACGGGAAGGAGACGCTGCAGCGCGCAGAACCCCCAAAGACACACGTGACCCACCACCCCCTCTC TGACCATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGA TGGGGAGGACCAGGACCCAGGACACCGAGCTTGTGGAGACCAGGCCAGCAGGAGATGGAACCTTCCAGAAGTGGGC AGCTGTGGTGGTGCCTTCTGGACAAGAGCAGAGATACACGTGCCATATGCAGCACGAGGGGCTGCAAGAGCCCCT CACCCTGAGCTGGGAGCCATCTTCCCAGCCCACCATCCCCATCATGGGCATCGTTGCTGGCCTGGCTGTCCTGGT TGTCCTAGCTGTCCTTGGAGCTGTGGTCACCGCTATGATGTGTAGGAGGAAGAGCTCAGGGCATTTTCTTCCCAC AGGTGGAAAAGGAGGGAGCTGCTCTCAGGCTGCGTGCAGCAACAGTGCCCAGGGCTCTGATGAGTCTCTCATCAC TTGTAAAGCCTGAGACAGCTGCCTGTGTGGGACTGAGATGCAGGATTTCTTCACACCTCTCCTTTGTGACTTCAA GAGCCTCTGGCATCTCTTTCTGCAAAGGCGTCTGAATGTGTCTGCGTTCCTGTTAGCATAATGTGAGGAGGTGGA TGTTCCAGAGAGGTGGGGCTGGATGTCTCCATCTCTGTCTCAAATTCATGGTGCACTGAGCTGCAACTTCTTACT TCCCTAATGAAGTTAAGAACCTGAATATAAATTTGTGTTCTCAAATATTTGCTATGAAGCGTTGATGGATTAATT AAATAAGTCAATTCCTAGAAGTIGAGAGAGCAAATAAAGACCTGAGAACCTTCCAG

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# 2168/6881 FIGURE 1993

MRVMAPRALLLLLSGGLALTETWACSHSMRYFDTAVSRPGRGEPRFISVGYVDDTQFVRFDSDAASPRGEPRAPW VEQEGPEYWDRETQNYKRQAQADRVSLRNLRGYYNQSEDGSHTLQRMYGCDLGPDGRLLRGYDQSAYDGKDYIAL NEDLRSWTAADTAAQITQRKLEAARAAEQLRAYLEGTCVEWLRRYLENGKETLQRAEPPKTHVTHHPLSDHEATL RCWALGFYPAEITLTWQRDGEDQTQDTELVETRPAGDGTFQKWAAVVVPSGQEQRYTCHMQHEGLQEPLTLSWEP SSQPTIPIMGIVAGLAVLVVLAVLGAVVTAMMCRRKSSGHFLPTGGKGGSCSQAACSNSAQGSDESLITCKA

# FIGURE 1994

GGAAAGGTGTACGCAGGCGCAGTGGCGTCTAAATTTGGGCCCACTAAATGCGTCGGAGCATCTCCGCGCCCAGGC GGCTCCTCCTCACTGCGGCAACCCGGGAAAACTTGTGAACTAATCAGAAAAAGTGGAAGGCGGGAGATCTTGGGG GAAGTTCGGGCCCGGGAATTCCGAAGGAGGGGTAGGCGCTGCCCGCGCGCAGAGGCCGCCCCCCCTGGCCCCG GCTTCTTGGCTGTCAAACAGATGCAGCAACGTCGGCTCCTGCCGAGGAGCCCAAGGGGTCCCGGGATCCGCCGCA CAGGCTGGCACTGCTTGAAGAGGAGGCTACTCGGAGACTGCGCCGCGCGGGTAGATCCGAAACGGGGCTGGGGCG AGTGCTCTATTAGGATAAGCAAGTTTGACAGGAAGAAGCTGCTCTTCTCCGAATTACACAGAGGTGATGTTCG AAAGTATCCTTGCCTTGCAGATTGGAGGCTCCCCAAATATTTTGTGATCTGAGGATCCAGCTCAAGTGAGGTGCC ATAGGACGTGTTCCTGAGTTTGCATTGCACGGAGACCTTCCTGGAATTTTTCATTTGCAAGTCGGCTTAACCAAT TTTGCATTGAGTCCTAGGCTGCTTGCACTCTGAATTTGGGCTATTCAGGTAGTGTGCTCAAAGTTGAAACCGCAT ACAGCACAACTCAAGTTTGCATCAGACTGGGAAGCGAACTTAAGCCAGCGGTGCGTGGCCCAGGAGTGGGAAAGG AAATGGATGCCTGAAGTGGAAGAGGTGCTGCAGAGGGGGCACCGCCCATGCTGCCCTGCCTTCCAACTGCTGCGCA ACAGGGCCGACCTGTGTGATGTGGCCCTGCGGCCCCAGCAGGAGCCTGGCCTCATCTCTGGGATCCACGCCGAAC TGCATGCCGAGCCCCGGGGTGATGACTGGAGGGTCAGCCTGGAAGACCACAGCCAAGGTGAGCATTAAGCAG CCCATACTCCCATCAGATTGGATGGATAGTCGTGGTCCAGACCTTCATCTTCCCACCAGAAGTGTGCACAGTCAG AAGCTCTCTGCCAGACTGACCCTTTTTGGTCCCGTTTAGCTCATACAGGACCTGGGATATCATCAGAAAGATATC ACAGTGGGGATGTTCTGAGGCCACTAGAGGCCAAGTTTAGACTTGATTCAGTTTCCAGCTTTGCTGAGGCACTCT GTTCCTGGGTTAGGGCAGTTCTATGTTGAATAATGTTTTTAATAATCTGGGCATGTCTTTCTCCGTGACTTGAGG CAGTTAGCCTCAGAAAGCCTAGATTCACATTTGAGTTTTGCCACTGCCTCTTGGTAAAGTCAGCTGTAGGAGTGT TATGGTTATTAGACTATAGTAGCCAACATTCATCTAGTGCTTACTGTTATGAGCCAGGCCCTATTTTAAGTGTAT TGAATGTAGGTGGTACTAATATTATCCTCATTTACAGTAAAGGAAAATGAGGCACAAAGAGGTTAAGGAACTTGT AGCCTGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGATGGGCAGATCACGAGGTCAGGA GTGGCGTGCACCTGTAACCCCAGCTACTCAGGAGGCTGAAGCAGCAGAATCACTTGAACCCGGGAGGCGGAGGTT ACCAAAAGCTTGCCCAGGGTCACATAACTGGTAAGTGGTAGAGCTAGGATCTGAACGAGCTGGAGCTGGGGGAGA GTGAGCATGTTTGAAAACTGGACCTTAGGGCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGC TGAGGCGGCAGATCAGGAGGTCAGGAGTATGAGACCAGCCTGGCCAACATGGTAAAACCCTGTCTCTGCTAAAA ATAAAAAATTAGCCAGACGTGGTGGCACATGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATTGC TTGAACCTGGGAGGCGGTTCAAGCTTGGGCAATAGAGCAAAACTCCATC

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### 2170/6881 FIGURE 1995

TTGGTGGATTCCTCAGTCCCTGCCGCCGCGGGGCCCCTGGGATAGCGGCGGGGCCTCCTGAACAGATCTCGGCC CCTTTCCAAACACTCCTGATGCCTCATTTGCCTCTCGCTTCTTTTCGACCACCATTTTGGGGGCTGAGGCACTCA  $\tt CGGGGCCTCCCCAGGTTTCACTCGTTTCTACACAGTCGGAGCCCCATGGATCTCCCATCTCCCGGAGGAACCGT$ GAAGCCAAACAGAAGCGCCTGCGAGAGAAGCAGGCTACTCTGGAGGCTGAGATAGCAGGGGAGAGCAAGTCACCT GCAGAATCCATTAAGGCCTGGAGGCCTAAGGAGTTAGTATTGTATGAAATCCCTACGAAACCCGGTGAAAAGAAA GATGTCTCTGGGCCCCTGCCTCCTGCATACAGCCCCCGATATGTTGAGGCTGCCTGGTACCCGTGGTGGGGTACGA GAGGGCTTCTTCAAACCAGAATATCAGGCCCGGCTGCCCCAAGCTACAGGGGAGACCTTTTCCATGTGTATCCCA CCTCCCAATGTCACTGGCTCCCTGCACATTGGCCACGCACTCACGGTGGCCATACAGGATGCCCTCGTGCGCTGG CACCGGATGCGTGGGGATCAAGTGCTGTGGGTCCCTGGTTCAGATCATGCAGGAATTGCTACACAAGCTGTGGTG CAGTGGAAGGAGGCGAAAGGTGGAGAGATCTGTGAGCAGCTGCGAGCTCTGGGTGCCTCCCTGGACTGGGATCGA GAGTGTTTTACCATGGATGTTGGCTCCTCAGTGGCTGTGACTGAAGCTTTTGTGCGGCTCTACAAGGCGGGGTTG CTGTACCGGAACCATCAGCTTGTCAACTGGTCATGTGCTTTAAGATCAGCCATCTCGGACATTGAGGTGGAGAAC CGGCCCTGCCTGGCCACACACACTTCGACTGCCTGGCTGCCCCACCCCCGTGTCTTTTTGGCCTCTATTTTCT GTTGCCTTCCCCGTGGATGGAGAGCCTGATGCAGAGGTTGTGGTAGGAACCACAAGGCCAGAGACGCTGCCTGGA GATGTGGCTGTGGCCGTTCATCCAGACGACTCGCGATACACACATCTACACGGGCGACAGCTTCGTCACCCCTTG ATGGGGCAGCCTCTTCCCCTCATCACAGACTATGCTGTTCAGCCACATGTGGGCACGGGGGCAGTGAAGGTGACT CCAGCTCACAGTCCTGCCGATGCTGAGATGGGGGCCCGACATGGCTTGAGCCCCTTGAATGTCATTGCGGAGGAT  ${\tt GGGACCATGACCTCCTCTGCGGGGACTGGCTGCAGGGTCTTCACCGGTTTGTGGCCCGGGAAAAGATAATGTCT}$ GTGCTGAGTGAATGGGGCCTGTTCCGGGGCCTCCAGAACCACCCCATGGTACTGCCCATCTGCAGCCGTTCTGGG GATGTGATAGAATACCTGCTGAAGAACCAGTGGTTTGTCCGCTGCCAGGAAATGGGGGCCCGAGCTGCCAAGGCT GTGGAGTCGGGGGCCCTGGAGCTCAGTCCCTCCTTCCACCAGAAGAACTGGCAGCACTGGTTTTCCCATATTGGG GACTGGTGTGTCTCCCGGCAGCTGTGGTGGGGCCATCAGATTCCAGCCTACCTGGTTGTAGAGGACCATGCGCAG GGAGAAGAGGACTGTTGGGTGGTTGGGCGGTCAGAGGCTGAGGCCAGAGAGGTAGCAGCGGAACTGACAGGGAGG CCAGGGGCAGAGCTGACCCTGGAGAGGGATCCTGATGTCCTAGACACATGGTTTTCTTCTGCCCTGTTCCCCTTT TCTGCCCTGGGCTGGCCCCAAGAGACCCCAGACCTTGCTCGTTTCTACCCCCTGTCACTTTTGGAAACGGGCAGC GACCTTCTGCTGTTCTGGGTGGCCGCATGGTCATGTTGGGGACCCAGCTCACAGGGCAGCTGCCCTTCAGCAAG GTGCTTCTTCATCCCATGGTTCGGGACAGGCAGGCCCGGAAGATGAGCAAGTCCCTGGGGAATGTGCTGGACCCA AGAGACATCATCAGTGGGGTGGAGATGCAGGTGCTGCAGGAAAAGCTGAGAAGCGGAAATTTGGACCCTGCAGAG CTGGCCATTGTGGCTGCAGCACAGAAAAAGGACTTTCCTCACGGGATCCCTGAGTGTGGGACAGATGCCCTGAGA TTCACACTCTGCTCCCATGGAGTTCAGGCGGGCGACTTGCACCTGTCAGTCTCTGAGGTCCAGAGCTGCCGACAT TTCTGCAACAAGATCTGGAATGCTCTTCGCTTTATCCTCAATGCTTTAGGGGAGAAATTTGTGCCACAGCCTGCT GAGGAGCTGTCTCCCTCCCCCGATGGATGCCTGGATCCTGAGCCGCCTTGCCCTGGCTGCCCAGGAGTGTGAG CGGGGCTTCCTCACCCGAGAGCTCTCGCTCGTCACTCATGCCCTGCACCACTTCTGGCTTCACAACCTCTGTGAC TGCGCTGACCTCGGCCTCCGGCCCCCACTGATGCCCTTCCTGGCTGAAGAGCTCTGGCAGAGGCTGCCC CCCAGGCCTGGTTGCCCCCTGCCCCCAGCATCTCGGTTGCCCCCTACCCCAGCGCCTGCAGCTTGGAGCACTGG CGCCAGCCAGAGCTGGAGCGGCGCTTCTCCCGGGTCCAAGAGGTCGTGCAGGTGCTAAGGGCTCTCCGAGCCACG TACCAGCTCACCAAAGCCCGGCCCCGAGTGCTGCTGCAGAGCTCAGAGCCTGGGGGACCAGGGCCTCTTCGAGGCC GGCTGGGCCCAGGCTCCACTCAGTGACACGGCTCAAGTCTACATGGAGCTGCAGGGCCTGGTGGACCCGCAGATC CAGCTACCTCTGTTAGCCGCCCGAAGGTACAAGTTGCAGAAGCAGCTTGACAGCCTCACAGCCAGGACCCCATCA GAAGGGGAGCAGGGACTCAGAGGCAACAAAAGCTTTCTTCCCTCCAGCTGGAATTGTCAAAACTGGACAAGGCA GCCTCTCACCTCCGGCAGCTGATGGATGAGCCTCCAGCCCCAGGGAGCCCGGAGCTCTAACTCATCCCCATC AGTTTTCCTCCCTCTCAGACCTGTCTTTGAGGACAAACAGATTTGTCAGCTGTCAGGGTGCAGTGGGACGTCAGA GACTATGTGGTCCATCGCCTTCATTGTGTAAATGAGGACACAGACTGGCTTGGTCGCAGTGACTGTGGTGTCCTT GAGATGCTCACATTACTGCCCGGCCTGCCTCCCACCTGGAAGTCTGGGAATGAGGAGATTGAGATAAACTTTTGA **AATCCC** 

# FIGURE 1996

MGQPLPLITDYAVQPHVGTGAVKVTPAHSPADAEMGARHGLSPLNVIAEDGTMTSLCGDWLQGLHRFVAREKIMS VLSEWGLFRGLQNHPMVLPICSRSGDVIEYLLKNQWFVRCQEMGARAAKAVESGALELSPSFHQKNWQHWFSHIG DWCVSRQLWWGHQIPAYLVVEDHAQGEEDCWVVGRSEAEAREVAAELTGRPGAELTLERDPDVLDTWFSSALFPF SALGWPQETPDLARFYPLSLLETGSDLLLFWVGRMVMLGTQLTGQLPFSKVLLHPMVRDRQGRKMSKSLGNVLDP RDIISGVEMQVLQEKLRSGNLDPAELAIVAAAQKKDFPHGIPECGTDALRFTLCSHGVQAGDLHLSVSEVQSCRH FCNKIWNALRFILNALGEKFVPQPAEELSPSSPMDAWILSRLALAAQECERGFLTRELSLVTHALHHFWLHNLCD VYLEAVKPVLWHSPRPLGPPQVLFSCADLGLRLLAPLMPFLAEELWQRLPPRPGCPPAPSISVAPYPSACSLEHW RQPELERRFSRVQEVVQVLRALRATYQLTKARPRVLLQSSEPGDQGLFEAFLEPLGTLGYCGAVGLLPPGAAAPS GWAQAPLSDTAQVYMELQGLVDPQIQLPLLAARRYKLQKQLDSLTARTPSEGEAGTQRQQKLSSLQLELSKLDKA ASHLRQLMDEPPAPGSPEL

TCCCATCTTTTCCTCGCATTTTTTCACCATCTTTCCCTCAATCTCCAGGAGCCAATGCGAGACTTTTGGCTCCGA ACTGAACCGAGTACACCTACAATGCAGGAATCTGCAGGAATTCTTAGGGGGCCTGAGCCCTGGGGTATTGGACCG ATTGTATGGGCACCCTGCCACATGTCTGGCTGTCTTCAGGGAGCTCCCATCCTTGGCTAAGAACTGGGTGATGCG GATGCTCTTTCTGGAGCAGCCTTTGCCACAGGCTGCTGTAGCTCTGTGGGTAAAGAAGGAATTCAGCAAGGCTCA GGAGGAAAGTACAGGGCTGCTGAGCGGCCTCCGGATCTGGCACACCCAGCTGCTCCCAGGCGGGCTCCAGGGCCT GGTCTTGCACTTCATGGTGGGCTCCCCCAGTGCAGCTGTCAGCCAGGACTTGGCTCAGCTCCTCAGCCAGGCTGG GCTCATGAAGAGTACTGAACCTGGAGAGCCGCCCTGCATTACTTCCGCTGGCTTCCAGTTCCTGTTGCTGGACAC  ${\tt CCCGGCTCAGCTCTGGTACTTTATGTTGCAGTATTTGCAGACAGCCCAGAGCCGGGGCATGGACCTGGTAGAGAT}$ TCTCTCCTTCCTCTCCAGCTCAGCTTCTCTACTCTGGGCAAGGATTACTCTGTGGAAGGTATGAGTGATTCTCT GTTGAACTTCCTGCAACATCTGCGTGAGTTTGGGCTTGTTTTCCAGAGGAAGAGGAAATCTCGGCGTTACTACCC CACACGCCTGGCCATCAATCTCTCATCAGGTGTCTCTGGAGCTGGGGGCACTGTGCATCAGCCAGGTTTCATTGT GATGCTCTATCGGTTCCCCAACATGGTGGTGGCGCAGGTGACCCGGGAGAGTGTGCAGCAGGCAATCGCCAGTGG GCCCCCACCATCACCGACCAGATCCGGCTCTGGGAGCTGGAAAGGGACAGACTCCGGTTCACTGAGGGTGTCCT GTATAACCAGTTCCTGTCGCAAGTGGACTTTGAGCTGCTGGTCGCCCACGCGCGGGAGCTGGGCGTGCTCGTGTT ACTCAGGTGTTTTTTTTTTTACGCGTCAGGGCTTTTCTTGTTTAATAAGTTATGATAGCT

MESTPSRGLNRVHLQCRNLQEFLGGLSPGVLDRLYGHPATCLAVFRELPSLAKNWVMRMLFLEQPLPQAAVALWV
KKEFSKAQEESTGLLSGLRIWHTQLLPGGLQGLILNPIFRQNLRIALLGGGKAWSDDTSQLGPDKHARDVPSLDK
YAEERWEVVLHFMVGSPSAAVSQDLAQLLSQAGLMKSTEPGEPPCITSAGFQFLLLDTPAQLWYFMLQYLQTAQS
RGMDLVEILSFLFQLSFSTLGKDYSVEGMSDSLLNFLQHLREFGLVFQRKRKSRRYYPTRLAINLSSGVSGAGGT
VHQPGFIVVETNYRLYAYTESELQIALIALFSEMLYRFPNMVVAQVTRESVQQAIASGITAQQIIHFLRTRAHPV
MLKQTPVLPPTITDQIRLWELERDRLRFTEGVLYNQFLSQVDFELLLAHARELGVLVFENSAKRLMVVTPAGHSD
VKRFWKROKHSS

### 2174/6881 FIGURE 1999A

TTAGGAAGTTATTTAACTGATCTCTGCCCTAGTTTCTTCATGTGTTAAATATGGATAGTAATAGTATCTACCTTA TGAAGTGACTGTGAAGATAAAATTATGGATTCTGTTTAAGGGTTTAGGCCAGTGTCTGGCACAGGGGAAGCATTC TAAAAATATAGCTGATGCTGTTAAACAATGACTGTTGTTGTTGTTTTACTGTTATTATCCCCAAAGCGGCCCATT CTGTCTGTTGCTGTCAGCTATGACTCAGTCCCCTGATTAACTTACGCACCACCCATTTTATCCCCTGCAGAGATG CTGCCCCACCCCTTAGGCCCGAGGGATCAGGAGCTATGGGACCAGAGGCCCTGTCATCTTTACTGCTGCTGCT  $\verb|CTTGGTGGCAAGTGGAGATGCTGACATGAAGGGACATTTTGATCCTGCCAAGTGCCGCTATGCCCTGGGCATGCA|\\$ GTTGGAGAGCAGTGACGGGATGGGGCCTGGTGCCCCGCAGGGTCGGTGTTTCCCAAGGAGGAGGAGTACTTGCA GGTGGATCTACAACGACTGCACCTGGTGGCTCTGGTGGGCACCCAGGGACGCCATGCCGGGGGCCTGGGCAAGGA GTTCTCCCGGAGCTACCGGCTTACTCCCGGGATGGTCGCCGCTGGATGGGCTGGAAGGACCGCTGGGGTCA GGAGGTGATCTCAGGCAATGAGGACCCTGAGGGAGTGGTGCTGAAGGACCTTGGGCCCCCCATGGTTGCCCGACT GGATGGACTCCTGTCTTACACCGCCCCTGTGGGGCAGACAATGTATTTATCTGAGGCCGTGTACCTCAACGACTC  ${\tt GGATGACTTTAGGAAGAGTCAGGAGCTGCGGGTCTGGCCAGGCTATGACTATGTGGGATGGAGCAACCACAGCTT}$  $\verb|CTCCAGTGGCTATGTGGAGATGGAGTTTGAGTTTGACCGGCTGAGGGCCTTCCAGGCTATGCAGGTCCACTGTAA||$ GGAGGGGGAGCCCATGCGCCACAACCTAGGGGGCCAACCTGGGGGACCCCAGAGCCCGGGCTGTCTCAGTGCCCCT TGGCGCCGTGTGGCTCGCTTTCTGCAGTGCCGCTTCCTCTTTTGCGGGGCCCTGGTTACTCTTCAGCGAAATCTC TGGCCCACCTCCCACCAACTTCAGCAGCTTGGAGCTGGAGCCCAGAGGCCAGCCCGTGGCCAAGGCCGAGGG GAGCCCGACCGCCATCCTCATCGGCTGCCTGGTGGCCATCATCCTGCTCCTGCTGCTCATCATTGCCCTCATGCT CTGGCGGCTGCACTGGCGCAGGCTCCTCAGCAAGGCTGAACGGAGGGTGTTGGAAGAGGAGCTGACGGTTCACCT CTCTGTCCCTGGGGACACTATCCTCATCAACAACCGCCCAGGTCCTAGAGAGCCACCCCCGTACCAGGAGCCCCG GCCTCGTGGGAATCCGCCCCACTCCGCTCCCTGTGTCCCCAATGGCTCTGCGTTGCTGCTCTCCAATCCAGCCTA CAACACCCAGGCCTACAGTGGGGACTATATGGAGCCTGAGAAGCCAGGCGCCCCGCTTCTGCCCCACCTCCCCA GAACAGCGTCCCCCATTATGCCGAGGCTGACATTGTTACCCTGCAGGGCGTCACCGGGGGCAACACCTATGCTGT GCCTGCACTGCCCCCAGGGGCAGTCGGGGATGGGCCCCCCAGAGTGGATTTCCCTCGATCTCGACTCCGCTTCAA GGAGAAGCTTGGCGAGGGCCAGTTTGGGGAGGTGCACCTGTGTGAGGTCGACAGCCCTCAAGATCTGGTTAGTCT TGATTTCCCCCTTAATGTGCGTAAGGGACACCCTTTGCTGGTAGCTGTCAAGATCTTACGGCCAGATGCCACCAA GAATGCCAGGAATGATTTCCTGAAAGAGGTGAAGATCATGTCGAGGCTCAAGGACCCAAACATCATTCGGCTGCT GGGCGTGTGTGTGCAGGACGACCCCCTCTGCATGATTACTGACTACATGGAGAACGGCGACCTCAACCAGTTCCT CAGTGCCCACCAGCTGGAGGACAAGGCAGCCGAGGGGGCCCCTGGGGACGGGCAGGCTGCGCAGGGCCCACCAT CAGCTACCCAATGCTGCATGTGGCAGCCCAGATCGCCTCCGGCATGCGCTATCTGGCCACACTCAACTTTGT ACATCGGGACCTGGCCACGCGGAACTGCCTAGTTGGGGAAAATTTCACCATCAAAATCGCAGACTTTGGCATGAG CCGGAACCTCTATGCTGGGGACTATTACCGTGTGCAGGGCCGGGCAGTGCTGCCCATCCGCTGGATGGCCTGGGA GTGCATCCTCATGGGGAAGTTCACGACTGCGAGTGACGTGTGGGCCTTTGGTGTGACCCTGTGGGAGGTGCTGAT GCTCTGTAGGGCCCAGCCCTTTGGGCAGCTCACCGACGAGCAGGTCATCGAGAACGCGGGGGAGTTCTTCCGGGA CCAGGGCCGGCAGGTGTACCTGTCCCGGCCGCCTGCCCGCAGGGCCTATATGAGCTGATGCTTCGGTGCTG GAGCCGGGAGTCTGAGCAGCGACCACCCTTTTCCCAGCTGCATCGGTTCCTGGCAGAGGATGCACTCAACACGGT GTGAATCACACATCCAGCTGCCCCTCCCTCAGGGAGCGATCCAGGGGAAGCCAGTGACACTAAAACAAGAGGACA CAATGGCACCTCTGCCCTTCCCCTCCCGACAGCCCATCACCTCTAATAGAGGCAGTGAGACTGCAGGTGGGCTGG AGAAGCCCCTGTCGCCCACCCAGCTGGTCCTGTGGATGGGATCCTCTCCACCCTCTCTAGCCATCCCTTGGGGA AGGGTGGGGAGAAATATAGGATAGACACTGGACATGGCCCATTGGAGCACCTGGGCCCCACTGGACAACACTGAT TCCTGGAGAGGTGGCTGCGCCCCAGCTTCTCTCTCTCTCACACACTGGACCCCACTGGCTGAGAATCTGGGG GTGAGGAGGACAAGAAGGAGGAAAATGTTTCCTTGTGCCTGCTCCTGTACTTGTCCTCAGCTTGGGCTTCTTC

# 2175/6881 FIGURE 1999B

CTCCTCCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCCCAGCCCTCAGTCACCCCCACTTCCCACTTGC
AGTCTTGTAGCTAGAACTTCTCTAAGCCTATACGTTTCTGTGGAGTAAATATTGGGATTGGGGGGAAAGAGGGAG
CAACGGCCCATAGCCTTGGGGTTGGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTT
TGTACATTTTTGGGGGGAGAGACACAGATTTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCT
GCACTAGGCAGGTAATAATAAAGGTTGAGTTTTCCAC

# FIGURE 2001

 ${\tt MMAACDPRHGRYLTVAAVFHGRISMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSSAIQELFKRILEQFTAMFGRKAFLHWYTGEGMD}$ 

# FIGURE 2002

ATGGCCCCTGCACTGCTCCTGATCCCTGCCTCGCCTCTTTCATCCTGGCCTTTGGCACCGGAGTGGAGTTC GTGCGCTTTACCTCCCTTCGGCCACTTCTTGGAGGGATCCCGGAGTCTGGTGGTCCGGATGCCCGCCAGGGATGG CTGGCTGCCCTGCAGGACCGCAGCATCCTTGCCCCCCTGGCATGGGATCTGGGGCTCCTGCTTCTATTTGTTGGG CAGCACAGCCTCATGGCAGCTGAAAGAGTGAAGGCATGGACATCCCGGTACTTTGGGGTCCTTCAGAGGTCACTG TATGTGGCCTGCACTGCCCTGGCCTTGCAGCTGGTGATGCGGTACTGGGAGCCCATACCCAAAGGCCCTGTGTTG TGGGAGGCTCGGGCTGAGCCATGGGCCACCTGGGTGCCCCTCCTCTGCTTTGTGCTCCATGTCATCTCCTGGCTC CTCATCTTTAGCATCCTTCTCGTCTTTGACTATGCTGAGCTCATGGGCCTCAAACAGGTATACTACCATGTGCTG GGGCTGGGCCACCTCTGGCCCTGAAGTCTCCCCGGGCTCTCAGACTCTTCTCCCACCTGCGCCACCCAGTGTGT GTGGAGCTGCTGACAGTGCTGTGGGTGCCTACCCTGGGCACGGACCGTCTCCTTGCTTTCCTCCTTACC CTCTACCTGGGCCTGGCTCACGGGCTTGATCAGCAAGACCTCCGCTACCTCCGGGCCCAGCTACAAAGAAAACTC CACCTGCTCTCTCGGCCCCAGGATGGGGAGGCAGAGTGAGGAGCTCACTCTGGTTACAAGCCCTGTTCTTCCTCT CCCGCTGAATTCTAAATCCTTAACATCCAGGCCCTGGCTGCTTCATGCCAGAGGCCCAAATCCATGGACTGAAGG AGATGCCCCTTCTACTACTTGAGACTTTATTCTCTGGGTCCAGCTCCATACCCTAAATTCTGAGTTTCAGCCACT GAACTCCAAGGTCCACTTCTCACCAGCAAGGAAGAGTGGGGTATGGAAGTCATCTGTCCCTTCACTGTTTAGAGC ATGACACTCTCCCCTCAACAGCCTCCTGAGAAGGAAAGGATCTGCCCTGACCACTCCCCTGGCACTGTTACTTG  $\verb|CCTCTGCGCCTCAGGGGTCCCCTTCTGCACCGCTGGCTTCCACTCCAAGAAGGTGGACCAGGGTCTGCAAGTTCA|\\$ ACGGTCATAGCTGTCCCTCCAGGCCCCAACCTTGCCTCACCACTCCCGGCCCTAGTCTCTGCACCTCCTTAGGCC  $\tt CTGCCTCTGGGCTCAGACCCCAACCTAGTCAAGGGGATTCTCCTGCTCTTAACTCGATGACTTGGGGCTCCCTGC$ TCTCCCGAGGAAGATGCTCTGCAGGAAAATAAAAGTCAGCCTTTTTCTAC

MAPALLLIPAALASFILAFGTGVEFVRFTSLRPLLGGIPESGGPDARQGWLAALQDRSILAPLAWDLGLLLLFVG QHSLMAAERVKAWTSRYFGVLQRSLYVACTALALQLVMRYWEPIPKGPVLWEARAEPWATWVPLLCFVLHVISWL LIFSILLVFDYAELMGLKQVYYHVLGLGEPLALKSPRALRLFSHLRHPVCVELLTVLWVVPTLGTDRLLLAFLLT LYLGLAHGLDQQDLRYLRAQLQRKLHLLSRPQDGEAE

### 2180/6881 FIGURE 2004A

TCCTCCTCTCCCTCCCTCCCTCCCTCCAGTCTCCGGATCTCCCTCGGTCCCTCTCTCCTCCTCTCCTCTC TCTGGACGCCCGGCTCCTCCGCACCCCTCCCCCGGGGGTCCCGCGGCCTGTGAGTTGACTGAGGGGGCTCAGACT TGGGGAGTGGGTGTCTCCTCGCCCCTGTCCTTGCTCCCGTCCCTGGCCCGGACCTTGGCTGTCTCTTTTGTGC GGGCGCAGGACTTGCAGGCGCCGGGGAGAAGAGACATGGAGCCGGCCCTTGGCACTCTGGGGTCGCGTGGGGCAG GACGCCCCGCCTGCTGCCGCCCCCCTCTTTCCCCTCTTCCCTGGTTTCCCTTCTCTCTAGACCTGTTCGCTC TCCGCCCCTCCTTGCCTCCCCAACACCCCCTCAGGTCCCGTTGCCTCCTGGTCCTTTCAGGGATTCCTGGTCCTT CCTTCCCACACTAGCCTCCCTGGGGTATCGCTGAGGCAGCCTGGCCTGCACCCAGGTTCCCCTCACCCCTGCCAC AATACGCATTAACCCTGTGCTGCCACATCTGGCTCCTGCCCTCATTGCCTCCAATCCGGACTCTTCCTCTCACAT CACCCCCACCCCCAACTTGGGCTCACAACTTCTCTTCACTTTTTCCATTTCCCCAGTTCTCTGCCTTCCGTC TTTCCCTCTGTCCTCATCCTTAGCCCCTCTGCCCTGCTTTGTGTCCCACCTCTCCCCCCTCCACTTCCTCCTCC CACCCTCAGTCTCACCCCGGGCTGTCTCACTCTCTGGAGCCTCTCCTGTTCTCTGTCCCCAGTGCTCCCT AGGCGTCCGTTCGAGGCCGAGAGAAGCAGAACGGGAGCGCCTGTCCCAGATGCCAGCCTGGAAACGAGGGCTCC TGGAGCGCCGCCGGGCCAAGCTTGGGCTGTCCCCTGGGGAGCCTAGCCCTGTGCTAGGGACTGTAGAGGCTGGAC CTCCAGACCCGGATGAGTCTGCGGTCCTTCTGGAGGCCATCGGGCCAGTGCACCAGAACCGATTCATCCGGCAGG AGCGGCAGCAGCAGCAGCAACAACAACGGAGTGAAGAGCTGCTAGCAGAGAGAAAGCCTGGGCCTCTGGAGG CTCGGGACTGGAGGCAAAGCCCAGGAGAGGTGGGAGACAGGAGCTCCCGACTGTCAGAGGCATGGAAATGGAGGC TGAGTCCTGGAGAAACTCCAGAGCGGAGTCTGAGACTAGCAGAGTCTCGAGAGCAAAGCCCCAGGAGAAAAGAGG TGGAAAGTAGACTGAGCCCAGGGGAATCTGCCTACCAGAAGTTGGGCCTGACAGAGGCCCCATAAATGGAGACCTG ACTCCAGAGAGTCTCAGGAACAGAGTTTGGTACAACTGGAGGCAACAGAGTGGAGGCTGAGGTCAGGAGAAAAA GACAAGACTACTCGGAAGAATGTGGGAGAAAAGAAGAGTGGCCAGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG AGCTGTCCGAGACCCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAGCAGAGCAGAGGCCTG TGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAATGGACCCTGAACTCCGGGAAGGCTCGAGAAT GGACACCCAGGGACATAGAGGCTCAAACTCAGAAACTAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTC AGAACTGCTGCTCTGTGCCCTCCCCCCCCCCACCAGAGGACGCTGGGACTGGAGGCCTGAGACAGCAGGAAGAGG AAGCAGTGGAGCTCCAGCCCCACCACCAGCCCCTCTGTCTCCCCCACCCCCAGCCCCAACTGCCCCCAACCTC GACACACCTTCACCGTCAACCCCGGCGGTCTGTGCCCCCTGCGACCCCAGCCACCCCAACCTCTCCAGCCACAC TTGATGCTGCAGTCCCGGGGGGCTGGGAAGAAGCGGTACCCAACTGCCGAGGAGATCTTGGTTCTGGGGGGGCTACC TCCGTCTCAGCCGCAGCTGCCTTGCCAAGGGGTCCCCCGAAAGACACCACAAACAGCTTAAGATCTCCTTCAGCG AGACAGCCCTGGAGACCACGTACCAATACCCCTCCGAGAGTTCGGTACTGGAGGAGCTGGGCCCGGAGCCTGAGG TCCCCAGTGCCCCAACCCTCCAGCAGCCCAACCCGACGACGAAGAGAGATGAGGAAGAGCTGCTGCTGCAGC ATGAGCCTGGCAGGGAAGGGCAACCAACATCTTGTAACTTGCTTTCCCCACCCTGTTTCTGGGGGCAGAGCCAAT AGAGTGAGCGCCAAGTCCTGAGAAGGGGCACAGAACTCCCTGGAGGGTGGAGATGGAGCACCTGCCCCCATGGC AGGGTACACTCTCCCCACAGCCTTCCTCCCCACCATCCCGTGGGGACTCTCGGGATTTAAGCACTCGTCTCTCTG GGAGGCCCAGACCCCACTCCATTTATAGGCACATCTCCTTCATTTCCTAGGTCACTGCCCCTTTGTTTACAGCTC

# FIGURE 2004B

MATIPDWKLQLLARRRQEEASVRGREKAERERLSQMPAWKRGLLERRRAKLGLSPGEPSPVLGTVEAGPPDPDES AVLLEAIGPVHQNRFIRQERQQQQQQQQRSEELLAERKPGPLEARERRPSPGEMRDQSPKGRESREERLSPRETR ERRLGIGGAQELSLRPLEARDWRQSPGEVGDRSSRLSEAWKWRLSPGETPERSLRLAESREQSPRRKEVESRLSP GESAYQKLGLTEAHKWRPDSRESQEQSLVQLEATEWRLRSGEERQDYSEECGRKEEWPVPGVAPKETAELSETLT REAQGNSSAGVEAAEQRPVEDGERGMKPTEGWKWTLNSGKAREWTPRDIEAQTQKLEPPESAEKLLESPGVEAGE GEAEKEEAGAQGRPLRALQNCCSVPSPLPPEDAGTGGLRQQEEEAVELQPPPPAPLSPPPPAPTAPQPPGDPLMS RLFYGVKAGPGVGAPRRSGHTFTVNPRRSVPPATPATPTSPATVDAAVPGAGKKRYPTAEEILVLGGYLRLSRSC LAKGSPERHHKQLKISFSETALETTYQYPSESSVLEELGPEPEVPSAPNPPAAQPDDEEDEEELLLLQPELQGGL RTKALIVDESCRR

# FIGURE 2006A

TTGAAAGGATCCTGAGAGAGGGGAAAGGGAAAACAGCAGCCACCCAACCACCTTGTGTCTTCTGCCCCTT CCCACCTATCTTGCCCACCCCACCACCCACGCTGCTTGGGACTTGAAATCTGTGGCCGAAGGACCGTCACTACA TATTTTTTTCCTCCAAAATTTTACCCCCTCCCCCTGAGCCCGAGGTGCTGACGTCGCAAAAAAATTGGATAAA ACCACCATCATGGGTTCGGGTCCCATAGACCCCAAAGAACTTCTCAAGGGCCTGGACAGCTTCCTTAACCGAGAT TGCACTTACTTGAACATTCTCCTGCAGACCCGTTCACCAGAAATATTGGTCAAATTTATTGACGTTGGCGGCTAC CTGCAGCATCTACCGCTCACTGTAGACCATCTCAAGCAGAACAACACAGCTAAACTGGTGAAGCAGCTGAGCAAG TCAAGTGAGGATGAAGAGCTCCGGAAATTGGCCTCAGTCCTTGTCAGCGACTGGATGGCTGTCATCCGCTCTCAG AGCAGTACCCAGCCTGCTGAGAAAGATAAGAAGAAACGTAAAGATGAAGGAAAAAGTCGAACTACCCTTCCTGAG CGACCTTTGACAGAGGTGAAGGCTGAGACCCGGGCTGAGGAGGCCCCAGAGAAGAAGAGGGGAGAAGCCCAAGTCT GTGAAGAAGAATGCCAGCACAGTGGTGGTTTCTGACAAGTACAACCTTAAACCCATCCCCCTCAAACGTCAGAGC ACCAAAGAGATCAAAGTGAAGATCATCCCGCCACAGCCTATGGAGGGCCTGGGCTTTCTGGATGCTCTTAATTCA GCCCCTGTTCCAGGCATCAAAATTAAGAAGAAAAAAAAAGTACTGTCACCTACGGCTGCCAAGCCAAGCCCTTT GAAGGGAAAACGAGCACAGAACCAAGCACAGCCAAACCTTCTTCCCCAGAACCAGCACCACCTTCTGAGGCAATG GACGCAGACCGTCCAGGCACCCCGGTTCCCCCTGTTGAAGTCCCGGAGCTCATGGATACAGCCTCTTTGGAGCCA GGAGCTCTGGATGCCAAGCCAGTGGAGAGTCCTGGAGATCCTAACCAACTGACCCGGAAAGGCAGGAAGAGAAAA AGTGTGACATGGCCTGAGGAAGGCAAACTGAGAGAATATTTCTATTTTGAATTGGATGAAACTGAACGAGTAAAT GTGAATAAGATCAAGGACTTTGGTGAGGCCGCTAAGCGAGAGATACTGTCAGACCGACATGCATTTGAGACAGCG CGGCGTCTGAGCCATGATAACATGGAGGAGAAGGTGCCCTGGGTGTGCCCCCGGCCCCTGGTTCTGCCCTCACCT CTTGTCACCCCTGGAAGCAATAGTCAGGAGCGATATATCCAGGCTGAGCGGGAGAAGGGAATCCTTCAGGAGCTC TTCCTGAACAAGGAGAGTCCTCATGAGCCTGATCCTGAGCCCTACGAGCCCATACCCCCTAAACTCATCCCCCTA GATGAGGAGTGTTCCATGGATGAGACTCCGTATGTTGAGACTCTGGAACCTGGGGGGGTCAGGTGGCTCACCTGAT GGGGCAGGAGGCTCCAAGTTGCCTCCAGTTCTGGCCAATCTTATGGGAAGCATGGGTGCTGGAAAAGGGCCCCCAA GGCCCTGGAGGAGGAGGCATTAATGTCCAAGAGATCCTCACCTCCATCATGGGTAGCCCAAACAGTCATCCTTCA GAGGAACTACTGAAACAACCAGACTATTCGGACAAGATCAAGCAGATGCTGGTGCCACATGGACTCCTAGGCCCT GGCCCAATAGCCAATGGTTTCCCACCAGGGGGTCCTGGGGGCCCCAAGGGCATGCAGCACTTTCCCCCTGGACCT GGGGGACCTATGCCAGGTCCCCATGGAGGCCCTGGTGGGCCAGTGGGTCCACGTCTTCTGGGTCCTCCACCCCCT CCCCGGGGAGGTGATCCCTTCTGGGATGGCCCGGGCGACCCTATGCGGGGTGGCCCAATGCGGGGGGGTCCAGGA CCAGGTCCTGGACCATACCATAGAGGCCGAGGTGGCCGAGGAGGAAACGAACCTCCTCCTCCTCCTCCATTC CGAGGCGCCAGAGGAGGTCGCTCTGGAGGAGGACCCCCAAATGGACGAGGGGGCCCTGGTGGGGGCATGGTTGGA GGTGGTGGGCATCGTCCTCACGAAGGCCCTGGTGGGGGCATGGGCAACAGCAGTGGACATCGTCCCCACGAAGGC CGTCCCCACGAAGGCCCTGGCGGTGGCATCAGTGGTGGCAGTGGCCATCGTCCCCATGAAGGCCCTGGCGGAGGA ATGGGTGCCGGTGGTGGACATCGCCCCCACGAAGGCCCTGGCGGAAGCATGGGTGGAAGTGGTGGACATCGTCCC CATGAAGGCCCTGGACACGGGGGGCCCCATGGCCACCGGCCTCATGATGTCCCTGGTCACCGAGGCCATGACCAT GGAGGCCACAGCCATGGAGGAGACATGTCAAACCGCCCTGTCTGCCGACATTTCATGATGAAGGGCAACTGCCGC GTTCACACACCCCTGTGGACTGCAGCCTCGCTCTTTCCACCCTGTTATGGCTTCTGTGAGGCCCATTTTCCCTT 

## 2184/6881· FIGURE 2006B

AACCCAAGCGGGACAAGGACTTTTGGGGGGGGGGTCAAAGGGCACGAAGTTGTGCCTACAGCTGTTACCATAGTAA TCTGTGACACTCTGAGGAGCTGGTTGTGGTGTTTTCCAGCGAGGGAAGAAAAGAGTAATTTTTTCAAAGCATT TATAGAAACGCAGCAAAGGGAAGGTGTGAGGTTGCCGCCATCCCTGGCAGAACGGAGGGAAGGCAGTTGGCTCCGG AATGCGGCCGCCGCAGATGTTCTCCGCAACCTTCCGGAAGTGGAATGGCGGGAGCCTCAGCATTGCTGCCCACCG ACCCCCGGAAGCGGAAACAGAATCCCCGCGTGCCCCTTCCTCACTACCCTCCAAATCCCGCTGCAGCCATTGCC GCAGACACGATGCCGAAACGAAAGAAGCAGAATCATCACCAGCCACCGACACAGCAGCAGCCCCCGCTGCCCGAG CGGGAAGAGACTGGAGATGAGGAGGATGGGAGTCCCATCGGACCACCCAGCCTTCTGGGCCCTCCCCCATGGCC AATGGAAAACCTGGCGACCCTAAGTCAGCTCTTCACAGAGGTCCTCCAGGATCAAGGGGACCACTGATTCCACCA CTGCTGAGTCTCCCACCTCCTCCTTGGGGTAGAGGCCCAATTCGGAGAGGGCTTGGCCCCAGGTCTAGCCCATAT GGTCGTGGTTGGTGGGGAGTCAATGCAGAACCTCCTTTTCCGGGGCCAGGCCATGGGGGTCCCACCAGGGGAAGC GACCCCCAGGTTATGGAAGACAAATCCGACCGCCCTGTCTGCCGACATTTTGCCAAAAAGGGCCACTGTCGATAT GAGGACCTCTGTGCCTTCTACCATCCAGGCGTCAATGGACCTCCTCTGTGAGACTGTGCCTTCCCATCCAGGCTG GAAGGAGCTCTCTGTGACCTAGCGGCCATTTATTTCTCTGTAGCCCTATGATGGCTACTGTGAGGCTCTTCTAAC ACCCTCAGTCAGTGACACCCATCCCATCCACCACTTCCCCCGTGTGGGGTCCAGAGTGGTGTTGCATCACTGG TGCGCGGCATACGCGCTTTCTTCTGATCCAGCCTGTAGAGACTCGCCTTTGGGACCCATCTTTGCTTCCTTTCAG TTGCCTCCTGGATCTTCTCTCCCGTCATCAAATGACTGCTGAACAGGAAACCTCTTTGGTGCTGTTTCTTGTGCA TCTGTCCACCTGTTCCCCAGTATTGCCCTCAATTCCTGAGAGCCCTGGAGCGGTTTCCTACCATTCCCTTCTTTT AGCTGCTTGTTTTAAGTCCTTTTTATGTGACATTCCCTACCCCCAATGTTGTCAGCTGCTTGTGAAACTCAGCCA GGTTGTCTAACCTGGGGTCAAGTTTGGGTGACTGGTGCAGAGTTACTTCCTAAAAGGCCACTCTCCCTGCCTTTG TGTGCATCCCCTTGTAGCCTTTCTCAGTGTCCGTGGCATTTTTGTGACTTCCCAGCACTAGAATAAGTTTTCCTG CCAAAATGAGTGAGGCGCTTGGTGCCCTCTGGACTTTCCCACTTCCCAACATGGGAGAATTGTGAACTTTCCATC AGACTGCCTCCCTGGCCCTCCCCATTCTTCTCCTGTTGGTTATTCTGAGTCTGACACAGACCCATGACATGTCTT ATAAAGCCTCCAATGGCTTTATCCTACCTAGATCCCTTCCAGCCCATTTTAATTAGACTATGTCATTGTGAGGCC ACCAGTCCATTCATTTGAATTCTGTGAATCTCCACCTTGCCTATCTTTGGGTAGAAGCTGGACAGTACTGTTGCC CTCTTCCAATCCTCTTCCCCTACATCCCTGGCACTGGTTGTTTTCTGTGAAAACAGCAGTGAACAGGTTCAGTTT TGAACTGGCCCTGAGGAAATGGGTCAGGAGTTGTATTGGCAAGAGGGGAGGGTGAGAGCTGTTGGAGAACTGAGA ATGAGGTTTTTTTTTTTTTTTTTTTAACTTTTTTATATTAGTAATAAATGCAGTGGAAACCAGCATTTTAT TTAAAAAAAAA

MPGRTEGGSWLRNAAAADVLRNLPEVEWREPQHCCPPTPRKRKQNPRVPLPHYPPNPAAAIAADTMPKRKKQNHH QPPTQQQPPLPEREETGDEEDGSPIGPPSLLGPPPMANGKPGDPKSALHRGPPGSRGPLIPPLLSLPPPPWGRGP IRRGLGPRSSPYGRGWWGVNAEPPFPGPGHGGPTRGSFHKEQRNPRRLKSWSLIKNTCPPKDDPQVMEDKSDRPV CRHFAKKGHCRYEDLCAFYHPGVNGPPL

PCT/US2003/028547

### 2187/6881 FIGURE 2009

GGGAGCTCGGCGGAGGGCGGGCCAGGTGACTGGTCCGGGCCATGCCGAGGAAGAAGCCATTCAGCGTGAAGCAGA AGAAGAAGCAGTTGCAGGACAAACGGGAGCGGAAGAGAGGGGCTTCAAGATGGGCTGCGCTCCAGTTCCAACAGCC GCAGCGGGAGCCGGGAGCGGGAGCAGACCGACACCTCGGACGGGGAGTCTGTGACCCATCATATCCGCA GGCTTAACCAGCAGCCTTCTCAGGGGCTGGGTCCACGAGGCTACGACCCAAATCGATACCGACTGCATTTTGAGA GAGACAGCAGGGAGGAGGAGAGAGAGAGAGAGCAGCCCGGGAGCAAGTTCTACAGCCGGTCAGTGCTGAGT TGTTGGAGCTGGACATCCGGGAGGTGTATCAGCCTGGCTCAGTTCTGGACTTTCCTCGACGTCCTTGGAGCT ATGAGATGTCCAAGGAGCAACTAATGAGCCAAGAGGAACGGAGCTTCCAAGACTATCTTGGGAAGATTCATGGGG TGTCTGACATCGTCCTGCTTATCACTGATATCCGACATCCAGTTGTGAATTTCCCGCCAGCACTTTATGAGTATG TGACTGGAGAACTTGGACTGGCCCTGGTGCTGGTTTTGAACAAGGTGGATCTGGCCCCGCCAGCTCTTGTGGTTG CCTGGAAGCATTATTTCCATCAACACTATCCCCAGCTCCACGTCGTCCTTTTCACCTCTTTTCCTCGGGACCCCC CAGAGCAGTTGCTGAGAGCCTGTGAAGCCATCACTGTGGGGAAAGTGGACTTGAGCAGCTGGCGGGAGAAGATTG CTCGGGATGTGGCTGGGGCCACCTGGGGTAATGGCTCTGGGGAGGAGGAGGAGGAGGAGGAGGACCCAGCAGTCC TGGTGGAGCAGCAGACTGATTCAGCAATGGAGCCAACTGGCCCAACCCAAGAGCGCTACAAGGATGGGGTGGTGA GTGTCTCCAGAACCCCGGGCCATACCCGATACTTTCAGACCTACTTTCTTACCCCCTCTGTGAAGCTCTGTGACT GCCCAGGCCTCATCTTCCCCATCTTCTGCCTAGGCAGTTGCAGGTTCTGGCAGGGATCTACCCTATCGCCCAGA TCCAGGAGCCCTACACTGCTGTGGGCTACCTGGCCTCCCGAATTCCCGTGCAGGCCCTGCTCCACCTGCGCCACC CAGAGGCTGAGGACCCCTCAGCGGAACACCCCTGGTGTGCCTGGGACATCTGTGAAGCCTGGGCAGAGAAACGTG GTTACAAGACAGCCAAGGCGGCTCGGAATGATGTGTACAGAGCAGCCAACAGTCTCTTGCGGCTGGCAGTGGACG GCCGCCTCAGCCTGTGTTTTCATCCCCCAGGCTACAGTGAACAGAAAGGCACCTGGGAGTCCCATCCAGAGACCA CGGAGCTGGTGGTTTTGCAGGGCAGGGTGGGGCCAGCAGGTGACGAGGAGGAGGAGGAAGAAGAGCTGAGCA GCTCCTGTGAGGAGGAGGAGGAGGAGGACCGGGATGCGGATGAGGAGGAGAAGGGGATGAGGAGACCCCAACCT CGGCTCCAGGGTCCAGCCTGGCCGAAACCCTTATGCCCTGCTGGGTGAGGATGAGTGCTGAGTTCCTCGCC CAGCGCCATCTTCCCTCCCAGTATCTTTGCTTTTGGACTGACCTGGGGGGTATCTCCCCTCTGCCACCCCAATTGT GAATAAAGATTGTTTGCTTTGTAGCCCCTTCCCCAGATGAACTGAGGTGAGAGCGGCTGTTCCAGGCTAACAGCT GTGGGAGGCTTCTCTCCTCTTCTCCCTTCTTTTT

MPRKKPFSVKQKKKQLQDKRERKRGLQDGLRSSSNSRSGSRERREEQTDTSDGESVTHHIRRLNQQPSQGLGPRG
YDPNRYRLHFERDSREEVERRKRAAREQVLQPVSAELLELDIREVYQPGSVLDFPRRPPWSYEMSKEQLMSQEER
SFQDYLGKIHGAYSSEKLSYFEHNLETWRQLWRVLEMSDIVLLITDIRHPVVNFPPALYEYVTGELGLALVLVLN
KVDLAPPALVVAWKHYFHQHYPQLHVVLFTSFPRDPRTPQDPSSVLKKSRRRGRGWTRALGPEQLLRACEAITVG
KVDLSSWREKIARDVAGATWGNGSGEEEEEEDGPAVLVEQQTDSAMEPTGPTQERYKDGVVTIGCVGFPNVGKSS
LINGLVGRKVVSVSRTPGHTRYFQTYFLTPSVKLCDCPGLIFPSLLPRQLQVLAGIYPIAQIQEPYTAVGYLASR
IPVQALLHLRHPEAEDPSAEHPWCAWDICEAWAEKRGYKTAKAARNDVYRAANSLLRLAVDGRLSLCFHPPGYSE
QKGTWESHPETTELVVLQGRVGPAGDEEEEEEEELSSSCEEEGEEDRDADEEGEGDEETPTSAPGSSLAGRNPYA
LLGEDEC

GTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAGGATGGTGCCGCGGGCGCCGTGGATG GAGCAGGAGGGGTCAGAGTATTGGGACCGGGAGACACGGAGCGCCAGGGACACCGCACAGATTTTCCGAGTGAAC CTGCGGACGCTGCGCGGCTACTACAATCAGAGCGAGGCCGGGTCTCACACCCTGCAGTGGATGCATGGCTGCGAG  $\tt CTGGGGCCCGACAGGCGCTTCCTCCGCGGGTATGAACAGTTCGCCTACGACGGCAAGGATTATCTCACCCTGAAT$ GAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCTCCGAGCAAAAGTCAAATGATGCCTCTGAG GCGGAGCACCAGAGAGCCTACCTGGAAGACACATGCGTGGAGTGGCTCCACAAATACCTGGAGAAGGGGAAGGAG ACGCTGCTTCACCTGGAGCCCCCAAAGACACGTGACTCACCACCCCATCTCTGACCATGAGGCCACCCTGAGG TGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCAGGATGGGGAGGGCCATACCCAGGAC ACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCAGCTGTGGTGCCCTTCTGGA GAGGAGCAGAGATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCT TCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTG AGTGCCCAGGGGTCTGAGTCTCACAGCTTGTAAAGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCT GCCTTGTGTGCGACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGGACTCTGGCTTCTTTTT TGCAAGGGCCTCTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGT CAGAGTGCGGCAGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGAT CGAAACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCA CGGGCCTGTAGTCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTG AGCCAGGATTGTGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAAATAAAAATTAAAAAA TAAAAAAAGAACC

MVDGTLLLLLSEALALTQTWAGSHSLKYFHTSVSRPGRGEPRFISVGYVDDTQFVRFDNDAASPRMVPRAPWMEQ EGSEYWDRETRSARDTAQIFRVNLRTLRGYYNQSEAGSHTLQWMHGCELGPDRRFLRGYEQFAYDGKDYLTLNED LRSWTAVDTAAQISEQKSNDASEAEHQRAYLEDTCVEWLHKYLEKGKETLLHLEPPKTHVTHHPISDHEATLRCW ALGFYPAEITLTWQQDGEGHTQDTELVETRPAGDGTFQKWAAVVVPSGEEQRYTCHVQHEGLPEPVTLRWKPASQ PTIPIVGIIAGLVLLGSVVSGAVVAAVIWRKKSSGGKGGSYSKAEWSDSAQGSESHSL

MAAQGQPQVQFKLVLVGDGGTGKTTFVKHHLTGEFEKKYVATLGVEVHPLVFHTNRGPVKFNVWDTAGLEKFSGL RDGYYIQAQSTIIVFDVTSRVTYKNVPNWHRDLVEVCENTPTVLSGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAAQYEHDLEVAQTTALPDEDDDL

GGAGACGCTTCTGGAAGGAACACCGCAATGGCTGCGCAGGGACAGCCCCAGGTCCAGTTCAAACTTGTATTGGTT
GGTGATGGTGGTACTGGAAAAACGACTTTCGTGAAACATCATTTGACTGGTGAATTTGAGAAGAAGTATGTAGCC
ACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCATACCAACAGAGGACCTGTTAAGTTCAATGTATGGGACACA
GCCGGCCTGGAGAAATTCAGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGAGTACCATCATAGTGTTTGAT
GTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTATGAGTGTGTGAAAACACCCCC
ACTGTGTTGAGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTCTTCCACCGAAAG
AAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTATAACTTTGTTGTTGCCATGCCTGCTCCCCCA
CCAGAAGTTGTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTC
CCGGACGAGGATGATGACCTGTGAGAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCC
TGTGA

# FIGURE 2016

WO 2004/030615

TTCATCGCCGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGCCAGAGGATGGAG CCGCGGGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCAGGAGACACGGAATGTGAAGGCCCAGTCA CAGACTGACCGAGTGGACCTGGGGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCGGTTCTCACACCATCCAG ATAATGTATGGCTGCGACGTGGGGTCGGACGGGCGCTTCCTCCGCGGGTACCGGCAGGACGCCTACGACGCAAG GATTACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGCGGCGGACATGGCGGCTCAGATCACCAAGCGCAAG CATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGG GAGGACCAGGACCAGGACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCGGCT GTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACCTGCCATGTGCAGCATGAGGGTCTGCCCAAGCCCCTCACC  $\tt CTGAGATGGGAGCTGTCTTCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGAGCT$ GTGATCACTGGAGCTGTGGTCGCTGCCGTGATGTGGAGGAGGAGAGAGCTCAGATAGAAAAGGAGGAGTTACACT  ${\tt CAGGCTGCAAGCAGTGACAGTGCCCAGGGCTCTGATGTGTCCCTCACAGCTTGTAAAGTGTGAGACAGCTGCCTT}$ GTGTGGGACTGAGAGGCAAGAGTTGTTCCTGCCCTTCCCTTTGTGACTTGAAGAACCCTGACTTTGTTCTGCAA AGGCACCTGCATGTGTCTGTGTTCGTGTAGGCATAATGTGAGGAGGTGGGGAGACCACCCCCACCCCCATGTCCAC CATGACCCTCTTCCCACGCTGACCTGTGCTCCCTCCCCAATCATCTTTCCTGTTCCAGAGAGGTGGGGCTGAGGT GAGACAAAATAAATGGAAGACATGAGAAC

TTGAGGTATTTCAGCACCGCTGTGTCGCGGCCCGGCCGGGGGGGCCCCGCTACATCGCCGTGGAGTACGTAGAC GAGGGGCCGCAGTATTGGGAGTGGACCACAGGGTACGCCAAGGCCAACGCACAGACTGACCGAGTGGCCCTGAGG CCCGACGGACGCCTCCTCCGCGGGTATCACCAGCACGCGTACGACGGCAAGGATTACATCTCCCTGAACGAGGAC CTGCGCTCCTGGACCGCGGGGACACCGTGGCTCAGATCACCCAGCGCTTCTATGAGGCAGAGGAATATGCAGAG GAGTTCAGGACCTACCTGGAGGGCGAGTGCCTGGAGTTGCTCCGCAGATACTTGGAGAATGGGAAGGAGACGCTA CAGCGCGCAGATCCTCCAAAGGCACACGTTGCCCACCACCCCATCTCTGACCATGAGGCCACCCTGAGGTGCTGG GCCCTGGGCTTCTACCCTGCGGAGATCACGCTGACCTGGCAGCGGGATGGGGAGGAACAGACCCAGGACACAGAG  $\tt CTTGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGCCCGCTGTGGTGCCTTCTGGAGAGGAA$ CAGAGATACACATGCCATGTGCAGCACGAGGGGCTGCCCCAGCCCCTCATCCTGAGATGGGAGCAGTCTCCCCAG CCCACCATCCCCATCGTGGCCATCGTTGCTGGCCTTGTTGTCCTTGGAGCTGTGGTCACTGGAGCTGTGGTCGCT GCTGTGATGTGGAGGAAGAAGAGCTCAGATAGAAACAGAGGGAGCTACTCTCAGGCTGCAGTCACTGACAGTGCC  ${\tt CAGGGCTCTGGGGTGTCTCTCACAGCTAATAAAGTG} \underline{{\tt TGA}} \underline{{\tt CAGGCTTCCTTGTGTGGGACTGAGAAGCAAGATAT}$ 

MAPRSLLLLLSGALALTDTWAGSHSLRYFSTAVSRPGRGEPRYIAVEYVDDTQFLRFDSDAAIPRMEPREPWVEQ
EGPQYWEWTTGYAKANAQTDRVALRNLLRRYNQSEAGSHTLQGMNGCDMGPDGRLLRGYHQHAYDGKDYISLNED
LRSWTAADTVAQITQRFYEAEEYAEEFRTYLEGECLELLRRYLENGKETLQRADPPKAHVAHHPISDHEATLRCW
ALGFYPAEITLTWQRDGEEQTQDTELVETRPAGDGTFQKWAAVVVVPSGEEQRYTCHVQHEGLPQPLILRWEQSPQ
PTIPIVGIVAGLVVLGAVVTGAVVAAVMWRKKSSDRNRGSYSQAAVTDSAQGSGVSLTANKV

 ${\tt MAEEKPKEGVKTENNDHINLKVAGQDGSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPMKQTHLHSWKWRMKIQLMCSNSRREVSTEKGTCFFTPELCSLKTKITFSIRKLQFASTTS}$ 

 ${\tt MAEEKPKEGVKTENNDHINLKVAGQDGSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPMKQTHLHSWKWRMKIQLMCSNSRREVSTEKGTCFFTPELCSLKTKITFSISLSFPPSPFLYCT}$ 

# FIGURE 2023

MEGTQEYDSSMQTVRFQGERRKSPSNATFSPFFWMPHSAKSLVADAGIHSRNQHSYAIASFIKYSQLHFKSRESR AGARDQPIIWKLKANYSAEERFLLLGFSDWPSLQPVLFALVLLCYLLTLTGNSALVLLAVRDPRLHTPMYYFLCH LALVDAGFTTSVVPPLLANLRGPALWLPRSHCTAQLCASLALGSAECVLLAVMALDRAAAVCRPLRYAGLVSPRL CRTLASASWLSGLTNSVAQTALLAERPLCAPRLLDHFICELPALLKLACGGDGDTTENQMFAARVVILLLPFAVI LASYGAVARAVCCMRFSGGRRRAVGTCGSHLTAVCLFYGSAIYTYLQPAQRYNQARGKFVSLFYTVVTPALNPLI YTLRNKKVKGAARRLLRSLGRGQAGQ

<u>ATG</u>GGGAGAAGGTATGTGAGGAAGGAAAGAAAAAGGCCAGCAGGTGAAGAAAAAGAAGAAGGTCTGGTGAGGACA ATGGAGACGGCCAATCGTTCCTTAAAACGGTCTCCTCCTCCTCGTTCCTCCAAGATGGCAAGGGAGCCTGC AAATTCGGTCTCCAAGGATCCCTCTGCCCAGAGCAACGAACTCCCTTTGGCAATATAGGAATAATCTTCATTCTC CCTGCAATTGTGCACATTAATAGGCTGTTTAATGAAAGTACAGTGTGGAGCTCATTATTGCGAACAGCAGCCCTT AGAGATCGTAGCTGGCTGAAAGGCGGCTTTAGAGCGGACGCCCAGGCTTCTTCATCAGCTTACCAGAAGGTTG GAGGCAGAAGACCTCCCATTTGCAGATTCACTCATTTCTCCGCTTATGCTTCCGTTCTTTGAAAGTGAACCACTA GGTTTCAGAAAGCACCAGGCAGTTAAAACAGAGTTTACTCCCTCGGTCACTGCACTAGAAATCAGGAGGCGAACA CTGTACCTAAACATAAAACGACATTCTCAAAAACTGCCCTGCACAGGCTTGTTGGGACTTCACGATCCTTCTTGG ACCTGCATCCCCCTCTTCTCTGGTACTCGGACCAAAATCGAACAATCAAGCAACAAAGTTGGCCTTAAAATTGAG GCCCCAGAGATGAGGTTACTGAGCGGGTATATGTCACAGAGCCAAACTTTCTGCAATGAATTGGAAAAGAACATC AAGACAGAGGGAGGAGCGCTGGGGGTGAACACCGCCTTGACCTTTGTAACCTGCTGCACAAATAAGGAGTGGTTG GCTGGCCGCAAAGTGGGTCTCATTGCTCCCCGCCGGACTGGACGTCTCCGGGGAACGAAGACTGTGCAGGAGAAA GAGAGCTAG

MGRRYVRKERKRPAGEEKEEGLVRTMETANRSLKRSPPPGSSLQDGKGACKFGLQGSLCPEQRTPFGNIGIIFIL PAIVHINRLFNESTVWSSLLRTAALRDRSWLVKAALERTPRLHQLTRRLEAEDLPFADSLISPLMLPFFESEPL GFRKHQAVKTEFTPSVTALEIRRRTLYLNIKRHSQKLPCTGLLGLHDPSWTCIPLFSGTRTKIEQSSNKVGLKIE APEMRLLSGYMSQSQTFCNELEKNIKTEGGALGVNTALTFVTCCTNKEWLLCQFSLKRCLTSWLCEFEYSFQAGS GRVLGNPERQPRDAGLRMQARCRRGWEGRQERCGYRETRRGRGRRRAPLLRVLALKATTGQRGGARKTQPSRKSFEKISGKKIMLPETVEARPAFKMDAPAGRKVGLIAPRRTGRLRGTKTVQEKES

GCTGGAAGGGACAGAACAGACACTAGATGCGGAGGAGGAGCAGGAGGAATCCGAAGAAGCGGCCTGTGGCAGCAA GAAGCGGGTAGTGCCAGGTATTGTGTACCTGGGCCATATCCCGCCGCGCTTCCGGCCCCTGCACGTCCGCAACCT TCTCAGCGCCTATGGCGAGGTCGGACGCGTCTTCTTCAGGCTGAGGACCGGTTCGTGAGACGCAAGAAGAAGGC AGCAGCAGCTGCCGGAGGAAAAAAGCGGTCCTACACCAAGGACTACACCGAGGGATGGGTGGAGTTCCGTGACAA GCGCATAGCCAAGCGCGTGGCGGCCAGTCTACACAACACGCCTATGGGTGCCCGCAGGCGCAGCCCCTTCCGTTA TGATCTTTGGAACCTCAAGTACTTGCACCGTTTCACCTGGTCCCACCTCAGCGAGCACCTCGCCTTTGAGCGCCA ACGGGGACAACGCTTTCTTGCGGCCGATGGGGACCCTGCTCGCCCAGATGGCTCCTGGACATTTGCCCAGCGTCC TACTGAGCAGGAACTGAGGGCCCGTAAAGCAGCACGGCCAGGGGGACGTGAACGGGCTCGCCTGGCAACTGCCCA GGACAAGGCCCGCTCCAACAAAGGGCTCCTGGCCAGGATCTTTGGAGCCCCGCCACCCTCAGAGAGCATGGAGGG  ${\tt ACCTTCCCTTGTCAGGGACTCC} \underline{{\tt TGA}} {\tt GGGCCTGGGTGGCCCCTTCCATTTCCTGGCCCTGCTTCCTGTCTA}$ CCTCATACTAGAATGATCGTGACTACCCGGGCAGACATTTTACTGTGTTTCTCAGACCAAGTGTCTACTGATGGC CCAAACATGGAGTTTTGTGGGCTTCCACTGTCCCCACTCCGAACTCCTGTATGTGCCTGGCTGAGTCACCTAATT GGGTCCCCTGAAAATCCCACTTCCTGCCCCCAGAAAGGGCCTTTATTTCCAACTAGGAGGATAATGCCTAGTCCA GGCAATCTTTCTCTGTTTAGCAGTCACAGGTGAGGGTGGTATTAGCATCTTTTTTATGTAGAAAAAATTGAGTTA ATGGGGTGGACTGGGTTGGGAAGAATACATTTCCTAATGTATTTATAGAAAATAATATTTTTATGTGCCTT TTTATTTTTGTTGGTGGGGAGGTCATTGGACAAGTTCCAACTTTCATCTTGTGTTCCCTTCACCTTCATATCCTG AATATCTTAGCCCAGTTTATCAATCAGTTATCTTAAGTCAGCATTTTCTAAGCCATTGTTTGAGGAAACAGTGAC AATAGGTAATAACACATCTTAGTATTAAGAGTTTTACAGGCCACTAGTATAAGATAGGCATCGTGGTAGATGCAT AGTGGTGAGTCAGTCCTCACCAAGTTTTCCAGATCATTCCTACAAAGTAAACTGGGAGAATAATAAGTCTGAAAG AGTGTGGAGTGCTCCCACAATTACAAAGAATGCTTCCTGGGTGGAGTGTTGAGTTGGAACCATTGTAAAGGTGGG CAAAGCCTAGTAGAGAACCAGTGCACCTCAGGTGCACTTACATATGGTGGGGCTGAGGCAAAGCAGCCCTGTAGG CTTCAAAGAATCAGTGTAAGCCACTAAAAGGAACTGAAAACCTAGGTGTCACAATAAACAGTCTACACAGTCTCA CGTAGACCAAAATTCTGATCATTTTCCAGGCTGTTGCATGAAGTGATAGAGTATGATTATAATTTCTGTTTGCTT GTGCTGTTTGTTTTTCTTCTCTGTCAATGTGATGATCTGTGTTTTATAGGGTAGAGTGGATTTGTCTACTT TGGCTGTAAAATACCCTAATCACATTATGATCTTGACAGGTGCACTTTACTGGGGAGAATAAAAAGGACCATACG GTAAA

 $\label{thm:likacy} \textbf{MEAEESEKAATEQEPLEGTEQTLDAEEEQEESEEAACGSKKRVVPGIVYLGHIPPRFRPLHVRNLLSAYGEVGRV\\ FFQAEDRFVRRKKKAAAAAGGKKRSYTKDYTEGWVEFRDKRIAKRVAASLHNTPMGARRRSPFRYDLWNLKYLHR\\ FTWSHLSEHLAFERQVRRQRLRAEVAQAKRETDFYLQSVERGQRFLAADGDPARPDGSWTFAQRPTEQELRARKA\\ ARPGGRERARLATAQDKARSNKGLLARIFGAPPPSESMEGPSLVRDS$ 

CCGTCTTTATTCTGTGGGCTCTGATTCTCCAATGGGAATACCAAGGGATGGTTTTCCATACTGGAACCCAAAGGT  ${\tt AAAGACACTCAAGGACAGACATTTTTGGCAGAGCATAG} {\tt ATG} {\tt AAAGACACTCAGGCTTTCCTTCTGCTCA}$ ACTTTCATGTCTCCCTCCTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTG GGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCA TGGAGCTGAAGTGGGTAAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACA GGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAA TACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTATGAAAAAGCCC TGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTAATCTTCACGTCGAAGTGAAGGGTTATGAGGATGGAGGGATCC ATCTGGAGTGCAGGTCCACCGGCTGGTACCCCCAACCCCAAATACAGTGGAGCAACGCCAAGGGAGAGAACATCC CAGCTGTGGAAGCACCTGTGGTTGCAGATGGAGTGGGCCTATATGAAGTAGCAGCATCTGTGATCATGAGAGGCG TCGCCGGAGCCAGTTACTTCTTGTGGAGACAACAGAAGGAAATAACTGCTCTGTCCAGTGAGATAGAAAGTGAGC AGAGGAAAAAATCCAGTACT TGA CTCGTGGAGAGGAGTCTTCGTCCGATACCAATAAGTCAGCCTGATGCTCTAATATGGAAAAATAGACTGCAGAAAAGGGGAACTCATTTAGCTCACGAGTGGTCGAGTGAAGATTGAAAATTAACCT CTGAGGGCCAGCAGCAGCTCATGCCTGTAATCCTAGCACTTTGGAAGGCTGAGGAGGGCGGATCACAAGGTCA GGAGATCAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATAAAAAATTAGCCG GGCATGGTGACGGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGAAGGCA GAGCTTGCAGTGAGCCGAGATCACGCCACTGCACTCCAGCCTGGGAGACAGAGCGAGACTCTGTCTCAAGAAAAA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MKMASSLAFLLLNFHVSLLLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSNL HVEVKGYEDGGIHLECRSTGWYPQPQIQWSNAKGENIPAVEAPVVADGVGLYEVAASVIMRGGSGEGVSCIIRNS LLGLEKTASISIADPFFRSAQPWIAALAGTLPILLLLLAGASYFLWRQQKEITALSSEIESEQEMKEMGYAATER EISLRESLQEELKRKKSST

ATGGACAGGACTGTCATTCAGAAATACCACACTGTGAATGGCCACAGCTGTGAAGTTAGGAAAGCCCTGTCAAAG
CAAGAGTGGTTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGCTGGTGGTCTTAGAAGT
GGTTTCAGTGGGAATAACAACTTTGGTCGTGGAGGAAACTTCCGTGGTCGTCGTGGGCCCTTTGGTGGCAGCCGTGGT
GGTGGTGGATATGATGGCAGTGGGGATGGCTATAATGGATATGGCCCAGATAAACAGTCTCCACTTGTTCAGGAC
TTCAACGGAGATATTCCACTCAGTCCTGCTTATGCCAGACACCTTGCACGAGCCTCTCCCAAGATAGCTAGGACT
CAGGGAACATGCAGGCTGACACAAGCATTGATGATCTATATTAATGCAAGTGTAATATGGAATGGAGAATTTTTA
CAAATGGTGTCATTACCAGCCATTAATGCCATAGCTTTAATTTTGTTCATTAAGTTTAGCAGCCAGTTACCTAACA
GGTCATCAAAGGAGGGACACAGAAGAGGCCAAGCACTGATAATGAAAGGTCTATATCACAGGTGTGCTCAGAAAAG
GCAAGCACAGATCACAGTTTCCAGGGCTGCCAGCAGAATGGATTTAATATTTGCCACGTGGGAAGAAGAAAAAGCC
ACAGGGTGCAGATATCAGGAATCTGAATTTCCGGGGCATAACGTGTGCACAGATGCAGCTTCAACAGATTCATCA
TATCATCCCCTTCAGAGCTGCTGTGACAGTTTACACCAGATTAACTCTCAGTTTCCAGAAAAAAGAGGAAACTCTG
GCCTAG

# FIGURE 2032

TTCCCCAGCATTCGAGAAACTCCTCTCTACTTTAGCACGGTCTCCAGACTCAGCCGAGAGACAGCAAACTGCAGC GCGGTGAGAGAGGGGAGAGAGAGAGAGAGACTCTCCAGCCTGGGAACTATAACTCCTCTGCGAGAGGCGGAG AACTCCTTCCCCAAATCTTTTGGGGACTTTTCTCTCTTTTACCCACCTCCGCCCCTGCGAGGAGTTGAGGGGCCAG TTCGGCCGCGCGCGCGTCTTCCCGTTCGGCGTGTGCTTGGCCCGGGGAACCGGGAGGGCCCGGCGATCGCGCG CGGCCGCCGAGGGTGTGAGCGCGCGTGGGCCCCCCCCGAGCCGAGCCATCGTGCAGCAAACCAACAATGCCG AGAACACGGAAGCGCTGCTGGCCGGCGAGAGCTCGGACTCGGGCCCCGGCCTCGAGCTGGGAATCGCCTCCTCCC  $\verb|CCACGCCCGGCCTCCACGGGCGGCAAGGCCGACGACCCGAGTGGTGCAAGACCCCGAGTGGGCACA| \\$ TCAAGCGACCCATGAACGCCTTCATGGTGTGGTCGCAGATCGAGCGGCGCAAGATCATGGAGCAGTCGCCCGACA TGCACAACGCCGAGATCTCCAAGCGGCTGGGCAAACGCTGGAAGCTGCTCAAAGACACCGACAAGATCCCTTTCA TTCGAGAGGCGGAGCGCCTCAAGCACATGGCTGACTACCCCGACTACAAGTACCGGCCCAGGAAGAAGG  ${\tt TGAAGTCCGGCAACGCCAACTCCAGCTCCTCGGCCGCCGCCTCCTCCAAGCCGGGGGAGAAGGGAGACAAGGTCG}$ GTGGGGTTAGCAAACCGCACGCCAAGCTCATCCTGGCAGGCGGCGGCGGCGGCGGGAAAGCAGCGGCTGCCGCCG CCGCCTCCTTCGCCGCCGAACAGGCGGGGGCCGCCGCCCTGCTGCCCCTGGGCGCCGCCGACCACCACTCGC TGTACAAGGCGCGGACTCCCAGCGCCTCGGCCTCCGCCAGCGCTCGGCAGCCTCCGCAGCGCTCGCGGCCCC CGGGCAAGCACCTGGCGGAGAAGAAGGTGAAGCGCGTCTACCTGTTCGGCGGCCTTGGCACGTCGTCGCCCG TGGGCGGCGTGGGCGCGGACCCCAGCGACCCCTGGGCCTGTACGAGGAGGAGGGCGCGGGCTGCTCGC GCGGCTACGCCAGCCTGCGCCGCCCTCGCCCCGTCCAGCGCGCCCTCGCACGCGTCCTCCTCGGCCTCGT CCCACTCCTCCTCCTCCTCCTCGGGCTCCTCGTCCTCCGACGACGAGTTCGAAGACGACCTGCTCGACCTGA ACCCCAGCTCAAACTTTGAGAGCATGTCCCTGGGCAGCTTCAGTTCGTCGTCGGCGCTCGACCGGGACCTGGATT  $\verb|TTAACTTCGAGCCCGGCTCCGCACTTCGAGTTCCCGGACTACTGCACGCCCGAGGTGAGCGAGATGATCT|\\$ CGGGGGGGGTAGGAGAGAAAAAAAAAGTGAAAAAAGGAAACGAAAAGGACAGACGAAGAGTTTAAAGAGAAA AGGGAAAAAAGAAAAAAGTAAGCAGGGCTCGTTCGCCCGCGTTCTCGTCGGATCAAGGAGCGCGGCGGC GTTTTGGACCCGCGCTCCCATCCCCACCTTCCCGGGCCGGGGACCCACTCTGCCCAGCCGGAGGGACGCGGAGG GCAAGAAGGCGAGTTAGTTTTCTAGAGACTTGAAGGAGTCTCCCCCTTCCTGCATCACCACCTTGGTTTTGTTTT ATTTTGCTTCTTGGTCAAGAAAGGAGGGGAGAACCCAGCGCACCCCTCCCCCCCTTTTTTTAAACGCGTGATGAA GACAGAAGGCTCCGGGGTGACGAATTTGGCCGATGGCAGATGTTTTGGGGGGAACGCCGGGACTGAGAGACTCCAC TGTTGAGGGGAGGCCAGCCAGTGTGACCGGCGCTAGGAAATGACCCCGAGAACCCCGTTGGAAGCGCAGCAGC GGGAGCTAGGGGGGGGGGGGGGGGGGGCACGAACTGGAAGGGGGTTCACGGTCAAACTGAAATGGATTTGCACG TTGGGGAGCTGGCGGCGGCTGCTGGGCCTCCGCCTTCTTTTCTACGTGAAATCAGTGAGGTGAGACTTCCCA AAAAAAAAAAGAAAAAAAGGG

MVQQTNNAENTEALLAGESSDSGAGLELGIASSPTPGSTASTGGKADDPSWCKTPSGHIKRPMNAFMVWSQIERR KIMEQSPDMHNAEISKRLGKRWKLLKDSDKIPFIREAERLRLKHMADYPDYKYRPRKKVKSGNANSSSSAAASSK PGEKGDKVGGSGGGGGGGGGGGSSNAGGGGGGASGGGANSKPAQKKSCGSKVAGGAGGGVSKPHAKLILAGGGG GGKAAAAAAASFAAEQAGAAALLPLGAAADHHSLYKARTPSASASASSAASAALAAPGKHLAEKKVKRVYLFG GLGTSSSPVGGVGAGADPSDPLGLYEEEGAGCSPDAPSLSGRSSAASSPAAGRSPADHRGYASLRAASPAPSSAP SHASSSASSHSSSSSSSSSSSDDEFEDDLLDLNPSSNFESMSLGSFSSSSALDRDLDFNFEPGSGSHFEFPDYC TPEVSEMISGDWLESSISNLVFTY

GGCCCGCGGCGGCCGAAATCCGCGGTTCACAGC<u>ATG</u>TCCGCCCTCGGCCCCTGCTGCGGAGGGGAGGGAACCCCC GACGAGGAGGAGGAGGAGGAAAAAGAAAAGAAAGGACCCCATCGTGGAAGGCCAAGAGGGAAAAGAAAAAAGTAGAG AGGTTGACAATGCAAGTCTCTTCCTTACAGAGAGAGCCATTTACAATTGCACAAGGAAAGGGGCAGAAACTTTGT GAAATTGAGAGGATACATTTTTTTCTAAGTAAGAAGAAAACCGATGAACTTAGAAATCTACACAAACTGCTTTAC AACAGGCCAGGCACTGTGTCCTCATTAAAGAAGAATGTGGGTCAGTTCAGTGGCTTTCCATTTGAAAAAGGAAGT  ${\tt GTCCAATATAAAAAGGAAGGAAGAAATGTTGAAAAAATTTAGAAATGCCATGTTAAAGAGCATCTGTGAGGTTCTT}$ GATTTGGAGAGATCAGGTGTAAATAGTGAACTAGTGAAGAGGGATCTTGAATTTCTTAATGCATCCAAAGCCTTCT GGCAAACCATTGCCGAAATCTAAAAAAACTTGTAGCAAAGGCAGTAAAAAGGAACGGAACAGTTCTGGAATGGCA AGGAAGCCTAAGCGAACCAAATGTCCTGAAATTCTGTCAGATGAATCTAGTGGTGATGAAGATGAAAAGAAAAAC CCTAAACAGAAAGCTACTTCTAAAAGTAAAAAATCTGTGAAAAGTGCCAATGTTAAGAAAGCAGATAGCAGCACC AAGTTGAAGAAACCCCCTACAGATGAAGAGTTAAAGGAAACAATAAAGAAATTACTGGCCAGTGCTAACTTGGAA  $\tt TTCATAAAAACAACTGTAAAAGAGCTAATTTCT\underline{\textbf{TGA}} \texttt{GATAGAGGACAGAGAAGATGACTCGTTCCCATAGATTTG}$ AAGATCTGATTTATACCATTATACCAGCAAAGAGAATGTATTTCCTTTTCTAAATCCTTGTTAAGCAACGTTAGT AGAACTTACTGCTGACCTTTTTATCTTGAGTGTTATGTGAATTTGAGTTTGCTGTTTTTAAATTGCATTTCTATGC CATTTTTAGTTTAAAATCTTGCATGGCATTAATTGTTCCTTGCTTTTATAGTTGTATTTTTGTACATTTTGGATTT ATTTTGAATACACATCTCTGTCAGTGTGAAAATTCAGCGGCAGTGTGTCCATCATATTAAAAATATACAAGCTAC AGTTGTCCAGATCACTGAATTGGAACTTTTCTCCTGCATGTGTATATATGTCAAATTGTCAGCATGACAAAAGTG TTTTTAAACTCACATAGGTAGGTATCTTTATAGTTGTAGACTATGGAATGTCAGTGTTCAGCCAAACAGTATGAT GGAACAGTGAAAGTCAATTCAGTGATGGCAACACTGAAGGAACAGTTACCCTGCTTTGCCTCGAAAGTGTCATCA ATTTGTAATTTTAGTATTAACTCTGTAAAAGTGTCTGTAGGTACGTTTTATATTATATAAGGACAGACCAAAAAT CAACCTATCAAAGCTTCAAAAACTTTGGGAAAGGGTGGGATTAAGTACAAGCACATTTGGCTTACAGTAAATGAA CTGATTTTATTAACTGCTTTTTGCCCATATAAAATGCTGATATTTACTGGAAACCTAGCCAGCTTCACGATTATG ACTAAAGTACCAGATTATAATGCCAGAATATAATGTGCAGGCAATCGTGGATGTCTCTGACAAAGTGTGTCTCAA **AAATAATATACTTTTACATTAAAGAAATTTAATGTTTCTCTGGAGTTGGGGCTCTTGGCTTTCAGAGTTTGGTTA** ATCAGTGTTGATTCTAGATGATCAACATAATGGACCACTCCTGAATGAGACTTAATTTTGTCTTTCAAATTTACT GTCTTAAATCAGTTTATTAAATCTGAATTTTAAAACATGCTGTTTATGACACAATGACACATTTGTTGCACCAAT TAAGTGTTGAAAAATATCTTTGCATCATAGAACAGAAATATATAAAAATATATGTTGAATGTTAACAGGTATTTT CACAGGTTTGTTTCTTGATAGTTACTCAGACACTAGGGAAAGGTAAATACAAGTGAACAAAATAAGCAACTAAAT 

MSASAPAAEGEGTPTQPASEKEPEMPGPREESEEEEDEDDEEEEEEEKEKSLIVEGKREKKKVERLTMQVSSLQR EPFTIAQGKGQKLCEIERIHFFLSKKKTDELRNLHKLLYNRPGTVSSLKKNVGQFSGFPFEKGSVQYKKKEEMLK KFRNAMLKSICEVLDLERSGVNSELVKRILNFLMHPKPSGKPLPKSKKTCSKGSKKERNSSGMARKAKRTKCPEI LSDESSSDEDEKKNKEESSDDEDKESEEEPPKKTAKREKPKQKATSKSKKSVKSANVKKADSSTTKKNQNSSKKE SESEDSSDDEPLIKKLKKPPTDEELKETIKKLLASANLEEVTMKQICKKVYENYPTYDLTERKDFIKTTVKELIS WO 2004/030615 PCT/US2003/028547

### 2214/6881 FIGURE 2036A

GGGGGAGGGAAACGGAGCAGTGACAGGTATCCCAGAGGGTGCTGCTGAGGCGACGATGGCCGAGGGGCCCGAGGA AGCCCGAGGCCACCCTCCCGGGCAGGACGATGGCGGAGGGGACCACGAGCCCGTCCCTTCCCTGAGAGGCCCTCC TACCACCGCCGTCCCATGCCCCCGCGACGACCCCCAGGCCGAACCCCAGGCCCGGGCCCGGCCCACAGCCCCGGG CCTCGCGGCTGCCGCCGCAGCCGACAAATTGGAGCCGCCGCGCGAGCTCAGGAAGCGCGGGGAGGCGGCCTCCGG GCTGAGEGCCCGCGAGTACTCCCGGCAAGTGCACGAGTGGCTGTGGCAGTCCTACTGCGGCTACCTCACCTGGCA CAGCGGCCTGGCCGCCTTCCCAGCCTACTGCAGCCCCCAGCCCTCCCCGCAGAGCTTCCCTTCGGGCGGCGCTGC AGTCCCCAGGCCGCGGCGCCGCCCCCGCAGCTGGGCTATTACAACCCCTTCTACTTCCTGAGCCCCGGGGC CGCGGGGCCTGACCCGCGGACAGCTGCCGGCATCAGCACCCCTGCTCCAGTCGCGGGCCTGGGACCCCGGGCTCC TCACGTGCAGGCGTCGGGCCCACTCCAGTGACGAGGGTAGGATCCGCAGCCCCTTCGCGAAGCCCGAGCGA GACCGGGCGACAGGCAGGCAGAGATATGTTATTCCATCCTTGGCCCACAGATTTATGGCAGAGATGGTGGATTT CTTTATTCTCTTCTTTATAAAAGCAACCATTGTCTTAAGCATTATGCACCTCAGTGGGATAAAGGATATCTCTAA GTTTGCTATGCATTATATAATAGAAGAAATAGATGAAGACACATCAATGGAAGACTTGCAGAAAATGATGGTTGT GGCACTTATATACAGATTATTAGTTTGTTTCTATGAGATAATTTGCATTTGGGGAGCAGGTGGAGCTACCCCAGG GAAGTTCCTGCTGGGGCTTCGAGTTGTGACATGTGATACATCAGTGCTTATTGCACCAAGTCGGGTTTTAGTGAT TCCTTCCTCAAATGTTAGCATTACAACGTCCACTATCCGAGCTTTGATCAAGAATTTTTCAATTGCTTCTTTTT CCCTGCTTTCATCACACTGCTGTTTTTTCAGCATAATCGAACAGCTTATGACATTGTAGCAGGAACCATTGTGGT AAAAAGAATGGGGTCAGATGATGCCCCCCAAAACCCTGATTTCCACACACTAAGACTAAATTATGTATCAAGGC CATCAGTATCCCTGGGTTACACTAATTGATGATTTAGAAATTAAAGCAGTCACTCCAGTGTGATGCAGGTGACTA CTCTGAAAGTATTGATTATACTTGAATGCCAAAGAACTTGTCCAGAAGAAAAACCTGTTAAAATTCAAGTATTAAA ATTTTTAGATCAAAAAGGCAAATGATTTTATAAACAATGGACAATATATACTTTCTTAAGATCTAAGGTACTTTC TATCCCAAAATAATGGAAAATGTCCAGTTGTGTTTTGTAAACACCTATGTAACTCATCTTTAGTTTACACTTCC TGGGGAAATTGTCTTTGGTGTTTAGAGGAGGGAATGAGAACACAAATTGGATAATCCACTGTCTCCCATCCCAGG CCATACTGCAGTTCCCTCTCGTAATGATGTAACTTTACAACTATTCTTAATGCTTGAACATGTATTTAGGGGCAA TGATTACTGTTAATGGTGGGGGAGTAAGTTTTCACTGTAAATTGAACTTATAATTTATGTGCAAGTGTTTTCAGT GCCCTGAATCAAACTATAAATGTGGGGAGAAATCACCTCCATCAAACAGTTGCATATTTACTGTAAAAGTATTCC CAGTATGTGTGCAGCATGAAGAAAGTATTAGTGCTTCTCAGTGTTCTCAGTGTAAATTCTATTTATATACAGCAT TATTTCATGATTAACTCTAAGTACTATTAATTAATAGCTTGCGAAATATTAGCAATTTTCCCATTATGGACTATT CTCTCTAAAGCAAGAGAGACTAGCATTCCCAGACATCATTCTAGGGTCTTTAAGCTCATTTTGGGTCTGCTAAAG TTTGGGGGGAAATGTTACGCAAAGTGATACTGTGTATGTTGCCATTTTGCTTTATTCTTCTGTTGAAGCAAAATT GTGGGGTTTTATTATGTGTGTGTGTCTTTTCCTAGATGTCCCAGTTAGCTGTGCTGAGATATACCTGTACTATTTA TGGTTTAAGTTTTGATTCTTAGGTATTTTCTCCAGCTCTGACATTGTTTTCCAAAGACACACTAAACTGCATTGC ACAGTTCAAAATTTGATTACTTAAGGGATCAATCTAGGTGGTGTTCTTGGTCTTAAATTTAACAGCAAACACAGC ACATATCTATTATCACTATATTAATTTTCAAAGGTTTTTCTTTGACGTTTAAAACTGTGACAACAGATATTCACA TTTGATTATAGAAACTTAATGTCTATTAATAATTTTAGTACAAAATTTCATAAACCGTGTTTTTCAAAATAAGTT CATGGGGAAGATTGTGTTACTGCCCTTCACAGTGAAAAAAAGAAAAATCTTTCATTTTTAAAATTAGGAGATGTT ACGTAACTTGGCACTTTAGTAGTGTATACACTAGCATTAGTTTATACACCACTTTTGCCGCTGGGGAATTCAAGT GTATTATACTGTATAACCCTACAAAATACATAGAAGTATTATTTGCCTTCATAATAGAACCCAAGAGTCTGTTTC AATTTATGAATTCAGTATTTGCACCGAGATTTTGATTCCCAAAGTTTGGAAAAAAATGACAAAACAACGAGGGAA GAAGGAACCAGACCTTAGTGCCACATATTTTTCTCTTGGGGTTGTAAGGTAGTCTCCTGCTTTCCAGAACACTTT

## 2215/6881 FIGURE 2036B

CCCGCATAGATGCGGACCTCAAGCTCGACTTCAAGGATGTCCTGCTCCGACCTAAGCGGAGCAGCCTCAAGAGCC GAGCCGAGGTGGATCTTGAACGCACCTTCACGTTTCGAAATTCAAAGCAGACCTACTCAGGGATTCCCATCATCG TGGCCAACATGGACACTGTGGGCACGTTTGAGATGGCAGCCGTGATGTCACAGCACTCCATGTTTACAGCAATTC ATAAGCATTACTCCCTGGATGACTGGAAGCTCTTTGCCACAAATCACCCAGAATGCCTGCAGAATGTAGCCGTGA GTTCAGGCAGTGGGCAGAATGATCTGGAAAAGATGACCAGCATCCTGGAAGCTGTGCCACAGGTTAAGTTTATTT GCCTGGATGTGGCCAATGGGTATTCAGAACATTTTGTGGAATTCGTGAAACTTGTCCGTGCCAAATTTCCTGAAC ACACCATTATGGCAGGGAACGTGGTGACAGGAGAAATGGTAGAAGAGCTTATTCTTTCCGGAGCAGATATCATCA AAGTGGGAGTTGGACCAGGTTCTGTGTGCACCACCACCAAGACGGGAGTGGGGTACCCCCAGCTGAGTGCCG TCATTGAGTGTGCCGACTCTGCCCATGGCCTGAAGGGCCACATCATCTCTGATGGAGGCTGTACGTGTCCAGGGG ATGTCGCCAAAGCCTTTGGAGCTGGAGCAGATTTTGTCATGCTGGGAGGAATGTTTTCGGGTCATACGGAGTGTG CTGGAGAAGTGTTTGAGAGGAACGGACGGAAGCTCAAGCTCTTCTACGGGATGAGCTCTGACACCGCCATGAACA AGCACGCAGGAGGAGTTGCTGAGTACAGAGCCTCTGAGGGTAAGACTGTGGAAGTTCCTTACAAAGGAGATGTGG AAAACACTATCCTGGATATTCTCGGGGGACTGAGGTCCACGTGCACCTACGTGGGGGCCCCCAAACTCAAGGAGC GCGTCTGGCTCGAGTGGAAGCGTCCAAACCTGCTTTTCCCATCTCCCCCCAAGTCTGTTCCGTCAGAGCTTCTGG  $\tt CTGCTCCTGAATGGTGGAATGCTGTCTCTTCTTCTTCTGCTGCTGCTGGAGGCTTCGGGGCTCTCCCGCCT$ GCCTTCTCGGGGCCCAGACGCAAGGCACCGATTGGGCCAACATCAGAGCCCTGCTGCCCAGAACTCATAACCTCA AAGAAGATGGTTTCACTTTAATATAATGCTATTATCTT

MPRIDADLKLDFKDVLLRPKRSSLKSRAEVDLERTFTFRNSKQTYSGIPIIVANMDTVGTFEMAAVMSQHSMFTA IHKHYSLDDWKLFATNHPECLQNVAVSSGSGQNDLEKMTSILEAVPQVKFICLDVANGYSEHFVEFVKLVRAKFP EHTIMAGNVVTGEMVEELILSGADIIKVGVGPGSVCTTRTKTGVGYPQLSAVIECADSAHGLKGHIISDGGCTCP GDVAKAFGAGADFVMLGGMFSGHTECAGEVFERNGRKLKLFYGMSSDTAMNKHAGGVAEYRASEGKTVEVPYKGD VENTILDILGGLRSTCTYVGAAKLKELSRRATFIRVTQQHNTVFS

### 2218/6881 FIGURE 2039A

TTATTTCAAGGCGAATCTGGCTTTGGGGGAAGAGAGAAAAGTCGGATTACAAGATCAACCACCACCAACAACA ATAAAAACCACCAGGATATTTTTTTGCAAATTTCTGACGGCTTTAAATTCATGAAGCAATTGTCCCCTTTTGCAA TCAGCATTTGGATCTCAGAATGAGCAAGGAAAGACCCAAGAGGAATATCATTCAGAAGAAATACGATGACAGTGA TGGGATTCCGTGGTCAGAAGAACGGGTGGTACGTAAAGTCCTTTATTTGTCTCTGAAGGAGTTCAAGAATTCCCA GAAGAGGCAGCATGCGGAAGGCATTGCTGGGAGCCTGAAAACTGTGAATGGGCTCCTTGGTAATGACCAGTCTAA GGGATTAGGACCAGCATCAGAACAGTCAGAGAATGAAAAGGACGATGCATCCCAAGTGTCCTCCACTAGCAACGA TGTTAGTTCTTCAGATTTTGAAGAAGGGCCGTCGAGGAAAAGGCCCAGGCTGCAAGCACAAAGGAAGTTTGCTCA GTCTCAGCCGAATAGTCCCAGCACAACTCCAGTAAAGATAGTGGAGCCATTGCTACCCCCTCCAGCTACTCAGAT ATCAGACCTCTCTAAAAGGAAGCCTAAGACAGAAGATTTTCTTACCTTTCTCTGCCTTCGAGGTTCTCCTGCGCT GCCCAACAGCATGGTGTATTTTGGAAGCTCTCAGGATGAGGAGGAGGTCGAGGAAGATGATGATGAGAAGAAGA CGTCAAAACAGCCACCAACAATGCTTCATCTTCATGCCAGTCGACCCCCAGGAAAGGAAAAAACCCACAAACATGT TCACAACGGGCATGTTTTCAATGGTTCCAGCAGGTCAACACGGGAGAAGGAACCTGTTCAAAAAACACAAAAGCAA AGAGGCCACTCCCGCAAAGGAGAAGCACAGCGATCACCGGGCTGACAGCCGCCGGGAGCAGGCTTCAGCTAACCA  $\verb|CCCGCAGCGGCCCCTCCACGGGTTCCTCGGCCAAGGGGGCTTGCTGCCACCCATCACCACCCCCTCTGCATCG|\\$ GTCGGCTCAGGACTTACGGAAACAGGTTTCTAAGGTAAACGGAGTCACTCGAATGTCATCTCTGGGTGCAGGTGT AACCAGTGCCAAAAAGATGCGCGAGGTCAGACCTTCACCATCCAAAACTGTGAAGTACACTGCCACGGTGACGAA GGGGGCTGTCACATACACCAAAGCCAAGAGAGAACTGGTCAAGGACACCAAACCCAATCACCACAAGCCCAGTTC CGCTGTCAACCACAATCTCAGGGAAAACTGAAAGTAGCAATGCAAAAACCCGCAAACAGGTGCTATCCCTCGG GGGGGCGTCCAAGTCCACTGGGCCCGCCGTCAATGGCCTCAAGGTCAGTGGCAGGTTGAACCCAAAGTCATGCAC TAAGGAGGTGGGGGGGCGCAGCTGCGGGAGGGCCTGCAGCTGCGGAAGGGGCTGCGGAACTCCAAGAGAGACACT GGAAGAGGCACACCAGGCGGAGAAGCCGCAGTCGCCCCCCAAGAAGATGAAAGGGGCGGCTGGCCCCGCCGAAGG GGAGAGGAATCGGCCGAAGCGGCCACGGCCGGGAAGAGCACCCCAGGCAGACAAGCACATGGCAAGGCGGACAG CGCCTCCTGTGAAAATCGTTCTACCTCGCAACCGGAGTCCGTGCACAAGCCGCAGGACTCGGGCAAGGCCGAGAA GGGCGGCGCAAGGCCGGGTGGGCGGCCATGGACGAGATCCCCGTCCTCAGGCCCTCCGCCAAGGAGTTCCACGA TCCGCTCATCTACATCGAGTCGGTCCGCGCTCAGGTGGAGAAGTTCGGGATGTGCAGGGTGATCCCCCCTCCGGA CTGGCGGCCCGAGTGCAAGCTCAACGATGAGATGCGGTTTGTCACGCAGATTCAGCACATCCACAAGCTGGGCCG GCGCTGGGGCCCCAACGTGCAGCGGCTGGCCTGCATCAAGAAGCACCTCAAATCTCAGGGCATCACCATGGACGA GCTCCCGCTCATAGGGGGCTGTGAGCTCGACCTGGCCTGCTTTTTCCGGCTGATTAATGAGATGGGCGGCATGCA GCAAGTGACTGACCTCAAAAAATGGAACAAACTAGCAGACATGCTGCGCATCCCCAGAACTGCCCAGGACCGGCT GGCCAAGCTGCAGGAGGCCTACTGCCAGTACCTACTCTCCTACGACTCCCTGTCCCCAGAGGAGCACCGGCGGCT GGAGAAGGAGGTGCTGATGGAGAAGGAGATCCTGGAGAAGCGCAAGGGGCCGCTGGAAGGCCACACAGAGAACGA CCACCACAGTTCCACCCTCTGCCCCGCTTCGAGCCCAAGAATGGGCTCATCCACGGCGTGGCCCCCAGGAACGG CTTCCGCAGCAAGCTCAAGGAGGTGGGCCAGGCCCAGTTGAAGACTGGCCGGCGGCGACTCTTCGCTCAGGAAAA AGAAGTGGTCAAGGAAGAGGAGGAGACAAAGGCGTCCTCAATGACTTCCACAAGTGCATCTATAAGGGAAGGTC TGTTTCTCTAACAACTTTTTATCGAACAGCGAGGAATATCATGAGCATGTGTTTCAGCAAGGAGCCTGCCCCAGC CGAAATCGAGCAAGAGTACTGGAGGCTAGTGGAAGAGAGGACTGCCACGTGGCAGTGCACTGCGGCAAGGTGGA CCTCCCCAATAACACAGGGTCCATCCTGCGTCACCTCGGTGCTGTGCCTGGAGTGACTATTCCCTGGCTAAATAT TGGCATGGTCTTTTCTACCTCATGCTGGTCTCGAGACCAAAATCACCTTCCATACATTGACTACTTACACACTGG TGCTGACTGCATTTGGTATTGCATTCCTGCTGAGGAGGAGAACAAGCTGGAAGATGTGGTCCACACCCTGCTGCA AGCCAATGGCACCCCAGGGCTGCAGATGCTGGAAAGCAACGTCATGATCTCCCCGGAGGTGCTGTGCAAAGAGGG GATCAAGGTGCACAGGACCGTGCAGCAGAGTGGCCAGTTTGTCGTCTGCTTCCCGGGATCCTTTGTGTCCAAAGT GTGCTGTGGGTACAGCGTGTCTGAAACCGTGCACTTTGCTACCACCCAGTGGACAAGTATGGGCTTTGAGACCGC CAAGGAAATGAAGCGTCGCCATATAGCTAAGCCATTCTCCATGGAGAAGTTACTCTACCAGATTGCACAAGCAGA AGCAAAAAAGAAACGGTCCCACTCTCAGTACCATCTCAGCCCTCCTGGATGAGCTCAGGGATACAGAGCTGCG GCAGCGCAGCCAGCTGTTCGAGGCTGGCCTCCACTCCTCCGCACGCTATGGCAGCCACGATGGCAGCAGCACGGT

## FIGURE 2039B

GGCGGACGGGAAGAAAAAGCCTCGAAAGTGGCTGCAGTTGGAGACGTCAGAGAGGAGGTGTCAGATCTGCCAGCA GGAGAAACAGAAGTCCTGCCGAGGGCTGAAGTTGATGTACCGCTACGATGAGGAACAGATTATCAGTCTGGTCAA TCAGATCTGCGGCAAAGTGTCTGGTAAAAACGGCAGCATTGAGAACTGTCTCAGTAAACCCACACCAAAAAAGAGG TCCCCGCAAGAGAGCGACAGTGGACGTGCCCCCCTCCCGTCTGTCAGCCTCCAGTTCATCCAAAAGTGCTTCGAG ACTTGCTGTAGGATTCAAGCTGTCTTTGCACTAGCTCTAAAGAAGATTTTCTTCTGGTTTTAGAGAACTAATTTT GTTTTAGCATTAAACTGTTGAACTTTTTTTTTGTACTTAGAAAACCTAGATACTGCAGTCAGATTTTGGAAAACTGC CGTATAGTCACTGTTTTAAAAACCCCGGAGGGGCTGTATTAATTTGTATTGCCCCATGGCTGACAAAAGCCTTTT TTTTTGGTTTTGATTTTTTTTTTTTTTGTAACTGTTGGGGGGAAAAAGGCTTTTTAACCCATTTTTGAAGAGGGTG AAGTTTGGAGAACAATTTAAAAACCATCAGTCATGTGAGCAGATTTTTTTAGAAGGGATAGGAGACACACGCGCA ATCTGGGAAGCCGGGCACCCCGTTTTGTTTCTCTGGGCGGTTGTGGCAGCTGAAGGCGGACGTTGTTTCCTAA  $\verb|CCATAGGTGGAACGAGGAGCGGAGCGAGTGGGCTCTCCACCAGCACATCACTATGCATCTGTTCCAGGAAAGA| \\$ AGAAAAGCGAGCGAGAAGACGGAAAAGACTGCCTGCCTTGGAGGGGTCACATGAGGGAGACCTGTGCCTGATTT CATTAGGAAATCCATTCTGTTATTTTTTGGTGCTGTTGGCTACTTTATCAAAAAACCCTTCAATAGCATCCTTAA GATTTAAAAAAAAAAAAAAAAAAAAGGAAAAAAGTGATGGAAGCCGTAAGTGCTTCTTTGTCATCGACGTGCA AAAACTTGTTTCATTTATGATCATGTAGAGAGCCACTAGGAGGCCTGCAGTTATTTTTGAATGTGAAAATGCATT GTACATATGCCTGTAAATTGTTTTAAATACTTGAGCCTTTTTCTCGGTGGGGGGTGGGGAGGGGGGGAGAAGAC AAGATGAAGAAAAGCCTTACATTTCAGTTTCTTCATCGGTTGGATTGGATGCTTACAGGGTTTTTCTTGTAACAT TTATAAGTGCTGCTTACATCACTGAACAACAACAAAAAAATAATAATGGAGTAGCTGTTGCCCTTCTCCGGTTGT GTGTACAGTATGTGTGGAATAAAAAAGGGAAACTGTTTTCACAAGCTGTTCTTTGTTTCATAATTGGATTCATCA ATCCCGTAGCTACCCATATTGCACTGAGCTTGCCAGTGGTGACTGCCAGGAACGTCCTATGATCCACTTTGTTGG TTGTTGTTGCAGAAGACTGAACTGTTTTGGAATATTTAACAATTACAGAAACAGTCAAGTGTTTTCCAATGTGGT TGTCCGGTTTCTATGGCCTTGCTGTGTACTTTCCCTCTTTTTGACAGTAAACTTCTGCCTATGGCTTACAGTTTG  ${\tt ACATTTAATTTATCGCCTCCTCCCTCCCTTGGGAGGGAGACTTCATGTGGTTTATTGCGAGTTTTTT}$ GTTTACTTTTCAGGTTTGTACTACAAGGTTTAATAATAAAAAACAAAGTTTTTTGGA

MSKERPKRNIIQKKYDDSDGIPWSEERVVRKVLYLSLKEFKNSQKRQHAEGIAGSLKTVNGLLGNDQSKGLGPAS EQSENEKDDASQVSSTSNDVSSSDFEEGPSRKRPRLQAQRKFAQSQPNSPSTTPVKIVEPLLPPPATQISDLSKR KPKTEDFLTFLCLRGSPALPNSMVYFGSSQDEEEVEEEDDETEDVKTATNNASSSCQSTPRKGKTHKHVHNGHVF NGSSRSTREKEPVQKHKSKEATPAKEKHSDHRADSRREQASANHPAAAPSTGSSAKGLAATHHHPPLHRSAQDLR KQVSKVNGVTRMSSLGAGVTSAKKMREVRPSPSKTVKYTATVTKGAVTYTKAKRELVKDTKPNHHKPSSAVNHTI SGKTESSNAKTRKQVLSLGGASKSTGPAVNGLKVSGRLNPKSCTKEVGGRQLREGLQLREGLRNSKRRLEEAHQA EKPQSPPKKMKGAAGPAEGPGKKAPAERGLLNGHVKKEVPERSLERNRPKRATAGKSTPGRQAHGKADSASCENR STSQPESVHKPQDSGKAEKGGGKAGWAAMDEIPVLRPSAKEFHDPLIYIESVRAQVEKFGMCRVIPPPDWRPECK  $\verb|LNDEMRFVTQIQHIHKLGRRWGPNVQRLACIKKHLKSQGITMDELPLIGGCELDLACFFRLINEMGGMQQVTDLK|$ KWNKLADMLRIPRTAQDRLAKLQEAYCQYLLSYDSLSPEEHRRLEKEVLMEKEILEKRKGPLEGHTENDHHKFHP LPRFEPKNGLIHGVAPRNGFRSKLKEVGQAQLKTGRRRLFAQEKEVVKEEEEDKGVLNDFHKCIYKGRSVSLTTF YRTARNIMSMCFSKEPAPAEIEQEYWRLVEEKDCHVAVHCGKVDTNTHGSGFPVGKSEPFSRHGWNLTVLPNNTG SILRHLGAVPGVTIPWLNIGMVFSTSCWSRDQNHLPYIDYLHTGADCIWYCIPAEEENKLEDVVHTLLQANGTPG LQMLESNVMISPEVLCKEGIKVHRTVQQSGQFVVCFPGSFVSKVCCGYSVSETVHFATTQWTSMGFETAKEMKRR HIAKPFSMEKLLYQIAQAEAKKENGPTLSTISALLDELRDTELRQRRQLFEAGLHSSARYGSHDGSSTVADGKKK PRKWLQLETSERRCQICQHLCYLSMVVQENENVVFCLECALRHVEKQKSCRGLKLMYRYDEEQIISLVNQICGKV SGKNGSIENCLSKPTPKRGPRKRATVDVPPSRLSASSSSKSASSSS

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# FIGURE 2042

WO 2004/030615 PCT/US2003/028547

## 2223/6881 FIGURE 2043

 ${\tt MGAYKYIQELWRKKQSDVMRFLLRVRCWQYRQLSALHRAPRPTRPDKARRLGYKAKQGYVIYRIRVRRGGRNQLK} \\ {\tt FARSLQSVAEERVGRHCGALRVLNSYWVGEDSTYKFFEVILIDPFHKAIRRNPDTQWITKPVHKHREMRGLTSAGRKSRGLGKGHKFHHTIGGSRRAAWRRRNTLQLHRYR} \\$ 

### 2224/6881 FIGURE 2044A

CCGACCAACACCAACACCCAGCTCCGACGCAGCTCCTCTGCGCCCTTGCCGCCCTCCGAGCCACAGCTTTCCTCC CGCTCCTGCCCCGGCCGTCGCCGTCTCCGCGCTCGCAGCGGCCTCGGGAGGGCCCAGGTAGCGAGCAGCAGCGACC TCGCGAGCCTTCCGCACTCCCGGCCGGTTCCCCGGCCGTCCGCCTATCCTTGGCCCCCTCCGCTTTCTCCGCGCC GGCCCGCCTCGCTTATGCCTCGGCGCTGAGCCGCTCTCCCGATTGCCCGCCGACATGAGCTGCAACGGAGGCTCC CACCCGCGGATCAACACTCTGGGCCGCATGATCCGCGCCGAGTCTGGCCCGGACCTGCGCTACGAGGTGACCAGC GGCGGCGGGGCACCAGCAGGATGTACTATTCTCGGCGCGCGTGATCACCGACCAGAACTCGGACGGCTACTGT CAAACCGGCACGATGTCCAGGCACCAGAACCAGAACACCATCCAGGAGCTGCTGCAGAACTGCTCCGACTGCTTG ATGCGAGCAGAGCTCATCGTGCAGCCTGAATTGAAGTATGGAGATGGAATACAACTGACTCGGAGTCGAGAATTG GATGAGTGTTTTGCCCAGGCCAATGACCAAATGGAAATCCTCGACAGCTTGATCAGAGAGATGCGGCAGATGGGC CAGCCCTGTGATGCTTACCAGAAAAGGCTTCTTCAGCTCCAAGAGCAAATGCGAGCCCTTTATAAAGCCATCAGT TTCACCAAACATGTCACCAGTGAATGTTTGGGGTGGATGAGGCAGCAAAGGGCGGAGATGGACATGGTGGCCTGG GGTGTGGACCTGGCCTCAGTGGAGCAGCACATTAACAGCCACCGGGGCATCCAACTCCATCGGCGACTATCGC TGGCAGCTGGACAAAATCAAAGCCGACCTGCGCGAGAAATCTGCTATCTACCAGTTGGAGGAGGAGTATGAAAAC CTGCTGAAAGCGTCCTTTGAGAGGATGGATCACCTGCGACAGCTGCAGAACATCATTCAGGCCACGTCCAGGGAG ATCATGTGGATCAATGACTGCGAGGAGGAGGAGCTGCTGTACGACTGGAGCGACAAGAACACCAACATCGCTCAG AAACAGGAGGCCTTCTCCATACGCATGAGTCAACTGGAAGTTAAAGAAAAAGAGCTCAATAAGCTGAAACAAGAA AGTGACCAACTTGTCCTCAATCAGCATCCAGCTTCAGACAAAATTGAGGCCTATATGGACACTCTGCAGACGCAG GAAGAGGCGCAGTCTACTGAAGCATACCTGAAGGGGCTCCAGGACTCCATCAGGAAGAAGTACCCCTGCGACAAG AACATGCCCCTGCAGCACCTGCTGGAACAGATCAAGGAGCTGGAGAAAAGAACGAGAGAAAATCCTTGAATACAAG CGTCAGGTGCAGAACTTGGTAAACAAGTCTAAGAAGATTGTACAGCTGAAGCCTCGTAACCCAGACTACAGAAGC ATCCTGAAGGACAACAACGAGCGCAGCAAGTGGTACGTGACGGGCCCGGGAGGCGTTGACATGCTTGTTCCCTCT GTGGGGCTGATCATCCCTCCTCCGAACCCACTGGCCGTGGACCTCTCTTGCAAGATTGAGCAGTACTACGAAGCC ATCTTGGCTCTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTCCTGGCACTACTGCATGATTGACATA GAGAAGATCAGGGCCATGACAATCGCCAAGCTGAAAACAATGCGGCAGGAAGATTACATGAAGACGATAGCCGAC CTTGAGTTACATTACCAAGAGTTCATCAGAAATAGCCAAGGCTCAGAGATGTTTGGAGATGATGACAAGCGGAAA ATACAGTCTCAGTTCACCGATGCCCAGAAGCATTACCAGACCCTGGTCATTCAGCTCCCTGGCTATCCCCAGCAC CAGACAGTGACCACACTGAAATCACTCATCATGGAACCTGCCAAGATGTCAACCATAATAAAGTAATTGAAACC GAGGGCAGGATGACTCTCAAAAACCTCCCTCTAGCAGACCAGGGATCTTCTCACCACATCACAGTGAAAATTAAC GAGCTTAAGAGTGTGCAGAATGATTCACAAGCAATTGCTGAGGTTCTCAACCAGCTTAAAGATATGCTTGCCAAC TTCAGAGGTTCTGAAAAGTACTGCTATTTACAGAATGAAGTATTTGGACTATTTCAGAAACTGGAAAATATCAAT GGTGTTACAGATGGCTACTTAAATAGCTTATGCACAGTAAGGGCACTGCTCCAGGCTATTCTCCAAACAGAAGAC ATGTTAAAGGTTTATGAAGCCAGGCTCACTGAGGAGGAAACTGTCTGCCTGGACCTGGATAAAGTGGAAGCTTAC CGCTGTGGACTGAAGAAATAAAAATGACTTGAACTTGAAGAAGTCGTTGTTGGCCACTATGAAGACAGAACTA CAGAAAGCCCAGCAGATCCACTCTCAGACTTCACAGCAGTATCCACTTTATGATCTGGACTTGGGCAAGTTCGGT AAACAAATCAAGCAATTGAGGAATTATCGTGATAACTATCAGGCTTTCTGCAAGTGGCTCTATGATGCTAAACGC CGCCAGGATTCCTTAGAATCCATGAAATTTGGAGATTCCAACACAGTCATGCGGTTTTTGAATGAGCAGAAGAAC TTGCACAGTGAAATATCTGGCAAACGAGACAAATCAGAGGAAGTACAAAAAATTGCTGAACTTTGCGCCAATTCA ATTAAGGATTATGAGCTCCAGCTGGCCTCATACACCTCAGGACTGGAAACTCTGCTGAACATACCTATCAAGAGG ACCATGATTCAGTCCCCTTCTGGGGTGATTCTGCAAGAGGCTGCAGATGTTCATGCTCGGTACATTGAACTACTT ACAAGATCTGGAGACTATTACAGGTTCTTAAGTGAGATGCTGAAGAGTTTTGGAAGATCTGAAGCTGAAAAATACC AAGATCGAAGTTTTGGAAGAGGAGCTCAGACTGGCCCGAGATGCCAACTCGGAAAACTGTAATAAGAACAAATTC CTGGATCAGAACCTGCAGAAATACCAGGCAGAGTGTTCCCAGTTCAAAGCGAAGCTTGCGAGCCTGGAGGAGCTG AAGAGACAGGCTGAGCTGGATGGGAAGTCGGCTAAGCAAATCTAGACAAGTGCTACGGCCAAATAAAAGAACTC

### 2225/6881 FIGURE 2044B

AATGAGAAGATCACCCGACTGACTTATGAGATTGAAGATGAAAAAGAGAAGAAGAAAATCTGTGGAAGACAGATTT TTAGAGTCTGAGAAAGCCATCAAGGAGAAGGAGTACGAGATTGAAAGGTTGAGGGTTCTACTGCAGGAAGAAGGC ACCCGGAAGAGAATATGAAAATGAGCTGGCAAAGGTAAGAAACCACTATAATGAGGAGATGAGTAATTTAAGG AACAAGTATGAAACAGAGATTAACATTACGAAGACCACCATCAAGGAGATATCCATGCAAAAAAGAGGATGATTCC AAAAATCTTAGAAACCAGCTTGATAGACTTTCAAGGGAAAATCGAGATCTGAAGGATGAAATTGTCAGGCTCAAT GACAGCATCTTGCAGGCCACTGAGCAGCGAAGGCGAGCTGAAGAAAACGCCCTTCAGCAAAAAGGCCTGTGGCTCT GAGATAATGCAGAAGAAGCAGCATCTGGAGATAGAACTGAAGCAGGTCATGCAGCAGCGCTCTGAGGACAATGCC CGGCACAAGCAGTCCCTGGAGGAGGCTGCCAAGACCATTCAGGACAAAAATAAGGAGATCGAGAGACTCAAAGCT GAGTTTCAGGAGGAGGCCAAGCGCCGCTGGGAATATGAAAATGAACTGAGTAAGGTAAGAAACAATTATGATGAG GAGATCATTAGCTTAAAAAATCAGTTTGAGACCGAGATCAACATCACCAAGACCACCATCCACCAGCTCACCATG CAGAAGGAAGAGGATACCAGTGGCTACCGGGCTCAGATAGACAATCTCACCCGAGAAAACAGGAGCTTATCTGAA GAAATAAAGAGGCTGAAGAACACTCTAACCCAGACCACAGAGAATCTCAGGAGGGTGGAAGAAGACATCCAACAG CAAAAGGCCACTGGCTCTGAGGTGTCTCAGAGGAAACAGCAGCTGGAGGTTGAGCTGAGACAAGTCACTCAGATG CGAACAGAGGAGAGCGTAAGATATAAGCAATCTCTTGATGATGCTGCCAAAACCATCCAGGATAAAAACAAGGAG ATAGAAAGGTTAAAACAACTGATCGACAAAGAAACAAATGACCGGAAATGCCTGGAAGATGAAAACGCGAGATTA CAAGAACTGACACGCCTGAGGATCGACTATGAAAGGGTTTCCCAGGAGAGGACTGTGAAGGACCAGGATATCACG CGGTTCCAGAACTCTCTGAAAGAGCTGCAGCTGCAGAAGCAGAAGGTGGAAGAGGAGCTGAATCGGCTGAAGAGG ACCGCGTCAGAAGACTCCTGCAAGAGGAAGAAGCTGGAGGAGGCTGGAAGGCATGAGGAGGTCGCTGAAGGAG CAAGCCATCAAAATCACCAACCTGACCCAGCAGCTGGAGCAGCATCCATTGTTAAGAAGAGGAGTGAGGATGAC CTCCGCAGCAGAGGGACGTGCTGGATGGCCACCTGAGGGAAAAGCAGAGGACCCAGGAAGAGCTGAGGAGGCTC TCTTCTGAGGTCGAGGCCCTGAGGCGGCAGTTACTCCAGGAACAGGAAAGTGTCAAACAAGCTCACTTGAGGAAT GAGCATTTCCAGAAGGCGATAGAAGATAAAAGCAGAAGCTTAAATGAAAGCAAAATAGAAATTGAGAGGCTGCAG TCTCTCACAGAGAACCTGACCAAGGAGCACTTGATGTTAGAAGAAGAACTGCGGAACCTGAGGCTGGAGTACGAT GACCTGAGGAGGACGAAGCGAAGCGGACAGTGATAAAAATGCAACCATCTTGGAACTAAGGAGCCAGCTGCAG GAAATTGAGAAATTCCAAAAGCAGGCTTTAGAGGCATCTAATAGGATTCAGGAATCAAAGAATCAGTGTACTCAG GTGGTACAGGAAAGAGAGCCTTCTGGTGAAAATCAAAGTCCTGGAGCAAGACAAGGCAAGGCTGCAGAGGCTG GAGGATGAGCTGAATCGTGCAAAATCAACTCTAGAGGCAGAAACCAGGGTGAAACAGCGCCTGGAGTGTGAGAAA CAGCAAATTCAGAATGACCTGAATCAGTGGAAGACTCAATATTCCCGCAAGGAGGAGGCTATTAGGAAGATAGAA TCGGAAAGAGAAAAGAGTGAGAGAGAAGAACAGTCTTAGGAGTGAGATCGAAAGACTCCAAGCAGAGATCAAG AGAATTGAAGAGAGGTGCAGGCGTAAGCTGGAGGATTCTACCAGGGAGACACAGTCACAGTTAGAAACAGAACGC TCCCGATATCAGAGGGAGATTGATAAACTCAGACAGCGCCCATATGGGTCCCATCGAGAGACCCAGACTGAGTGT GAGTGGACCGTTGACACCTCCAAGCTGGTGTTTGATGGGCTGAGGAAGAAGGTGACAGCAATGCAGCTCTATGAG TGTCAGCTGATCGACAAAACAACCTTGGACAAACTATTGAAGGGGAAGAAGTCAGTGGAAGAAGTTGCTTCTGAA ATCCAGCCATTCCTTCGGGGTGCAGGATCTATCGCTGGAGCATCTGCTTCTCCTAAGGAAAAAATACTCTTTGGTA GAGGCCAAGAGAAAGAAATTAATCAGCCCAGAATCCACAGTCATGCTTCTGGAGGCCCAGGCAGCTACAGGTGGT ATAATTGATCCCCATCGGAATGAGAAGCTGACTGTCGACAGTGCCATAGCTCGGGACCTCATTGACTTCGATGAC CGTCAGCAGATATATGCAGCAGAAAAAGCTATCACTGGTTTTGATGATCCATTTTCAGGCAAGACAGTATCTGTT TCAGAAGCCATCAAGAAAAATTTGATTGATAGAGAAACCGGAATGCGCCTGCTGGAAGCCCAGATTGCTTCAGGG TTGTATCGATCCTGAATGATCCCCGAGATAGTCAGAAAAACTTTGTGGATCCAGTCACCAAAAAGAAGGTCAGT TACGTGCAGCTGAAGGAACGGTGCAGAATCGAACCACATACTGGTCTGCTTTGCTTTCAGTACAGAAGAGAAGAC ATGTCCTTCCAAGGAATCAGACAACCTGTGACCGTCACTGAGCTAGTAGATTCTGGTATATTGAGACCGTCCACT GTCAATGAACTGGAATCTGGTCAGATTTCTTATGACGAGGTTGGTGAGAGAATTAAGGACTTCCTCCAGGGTTCA AGCTGCATAGCAGGCATATACAATGAGACCACAAAACAGAAGCTTGGCATTTATGAGGCCATGAAAATTGGCTTA GTCCGACCTGGTACTGCTCTGGAGTTGCTGGAAGCCCAAGCAGCTACTGGCTTTATAGTGGATCCTGTTAGCAAC

#### 2226/6881 FIGURE 2044C

TTGAGGTTACCAGTGGAGGAAGCCTACAAGAGAGGTCTGGTGGGCATTGAGTTCAAAGAGAAGCTCCTGTCTGCA GAACGAGCTGTCACTGGGTATAATGATCCTGAAACAGGAAACATCATCTCTTTGTTCCAAGCCATGAATAAGGAA CTCATCGAAAAGGGCCACGGTATTCGCTTATTAGAAGCACAGATCGCAACCGGGGGGATCATTGACCCAAAGGAG AGCCATCGTTTACCAGTTGACATAGCATATAAGAGGGGCTATTTCAATGAGGAACTCAGTGAGATTCTCTCAGAT AAGAATACCCTCAGGAAGCGTAGAGTGGTCATAGTTGACCCAGAAACCAATAAAGAAATGTCTGTTCAGGAGGCC TACAAGAAGGGCCTAATTGATTATGAAACCTTCAAAGAACTGTGTGAGCAGGAATGTGAATGGGAAGAAATAACC GCTGACATGATCTCCTTGAAAAATGGTGTCGGCACCAGCAGCAGCATGGGCAGTGGTGTCAGCGATGATGTTTTT AGCAGCTCCCGACATGAATCAGTAAGTAAGATTTCCACCATATCCAGCGTCAGGAATTTAACCATAAGGAGCAGC TCTTTTCAGACACCCTGGAAGAATCGAGCCCCATTGCAGCCATCTTTGACACAGAAAACCTGGAGAAAATCTCC ATTACAGAAGGTATAGAGCGGGGCATCGTTGACAGCATCACGGGTCAGAGGCTTCTGGAGGCTCAGGCCTGCACA GGTGGCATCATCCACCCAACCACGGGCCAGAAGCTGTCACTTCAGGACGCAGTCTCCCAGGGTGTGATTGACCAA GACATGGCCACCAGGCTGAAGCCTGCTCAGAAAGCCTTCATAGGCTTCGAGGGTGTGAAGGGAAAGAAGAAGATG TCAGCAGCAGAGGCAGTGAAAGAAAAATGGCTCCCGTATGAGGCTGGCCAGCGCTTCCTGGAGTTCCAGTACCTC ACGGGAGGTCTTGTTGACCCGGAAGTGCATGGGAGGATAAGCACCGAAGAAGCCATCCGGAAGGGGTTCATAGAT GGCCGCGCCGCACAGAGGCTGCAAGACACCAGCAGCTATGCCAAAATCCTGACCTGCCCCAAAACCAAATTAAAA ATATCCTATAAGGATGCCATAAATCGCTCCATGGTAGAAGATATCACTGGGCTGCGCCTTCTGGAAGCCGCCTCC GTGTCGTCCAAGGGCTTACCCAGCCCTTACAACATGTCTTCGGCTCCGGGGTCCCGCTCCGGCTCCCGCTCGGGA TCTCGCTCCGGATCTCGCTCCGGGTCCCGCAGTGGGTCCCGGAGAGGAAGCTTTGACGCCACAGGGAATTCTTCC TACTCTTATTCCTACTCATTTAGCAGTAGTTCTATTGGGCACTAGTAGTCAGTTGGGAGTGGTTGCTATACCTTG ACTTCATTTATATGAATTTCCACTTTATTAAATAATAGAAAAGAAAATCCCGGTGCTTGCAGTAGAGTGATAGGA CATTCTATGCTTACAGAAAATATAGCCATGATTGAAATCAAATAGTAAAGGCTGTTCTGGCTTTTTATCTTCTTA GCTCATCTTAAATAAGCAGTACACTTGGATGCAGTGCGTCTGAAGTGCTAATCAGTTGTAACAATAGCACAAATC GAACTTAGGATTTGTTTCTTCTTCTGTGTTTCGATTTTTGATCAATTCTTTAATTTTGGAAGCCTATAATACA GTTTTCTATTCTTGGAGATAAAAATTAAATGGATCACTGATATTTTAGTCATTCTGCTTCTCATCTAAATATTTC CATATTCTGTATTAGGAGAAAATTACCCTCCCAGCACCAGCCCCCTCTCAAACCCCCAACCCAAAACCAAGCAT TTTGGAATGAGTCTCCTTTAGTTTCAGAGTGTGGATTGTATAACCCATATACTCTTCGATGTACTTTGTTTTGGTTT GGTATTAATTTGACTGTGCATGACAGCGGCAATCTTTTCTTTGGTCAAAGTTTTCTGTTTATTTTGCTTGTCATA TTCGATGTACTTTAAGGTGTCTTTATGAAGTTTGCTATTCTGGCAATAAACTTTTAGACTTTT

MNEFLTQELAEDGYSGVEMRVTPTRTEIIVLATRTQNVLGEKGRRIRELTAVVQKRFGSPEGSVELYAEEVATRG LCAIAQAESLPYKLLGGLAVRRACYGVSRFIMETGAKGCEVVVSGKL

## FIGURE 2047

ATGACCAGGTTCATCATCGCCTCTCCCCCCTCTACCTTTCTCCCTGGTTTCCATAGAGCAGAAATCTGGGTC AAGGTGGAGTGCATTGGATCAAGAGTTGCTATGATTTGGGAAAAGCTCTGCAGGATAAGTCGAATAAAATCAGAC CTTGCAGAAACTCAATCTGGCCCCTGGGAACTCTCCGGTGTGGAGCTGGAGGAAAAACCAGTACAGTACTCTCTC AGGAAAACAAGCTCAGAGGCGGAATCAACAAGACAGCTGACGAACACCTCTCTTCAAGAGAGGCCAGGGTCTCA AGCTCAAGTGGCCAAGGCAAGACGGGTCAAAGTCAGAGTGGTGGTCACAGTCCTGGAGGTGGCAAGAAGGATGAC AAGGACAAGAAAAAGAAATATGAACCTCCTGTACCAACTGGAGTGGGGAAAAAGAAGAAAACAAAAGGATCAGAT GTTGCCAGCAAACTGCCACTGGAATCGGGAACAAATGGAACCATTAGAAGAAAAGCAAGAGGAGGAGGAAAGATCAAA GGTGGACGATCTGAGGGGACCCCGATGTCAGTAGGAACCTTGGAAGAGATCAATGACAGTCATGCCATCGTGTCT ACATCTGTGGGCTCAGGACACTACGCCAACATTCTTTCATTTGTAGACAAGGATCTGCTGGCAACTGGCTGCTCA AAGGTGGAAAAGGTCCCCCAGGAGACCTATGCCAATACTGGGAGGTTGGATAATCAAATTCAGGAAATTAAGGAA TCTGTGGAGCTTCCTCTCACCCATGCTGAACATTATGAAGAGATGGGTATAAAGCCTCCTAAGGGGGTCATTCTC TATGGTCCACCTGGCATAGTTAAAACCTTGCTAGCCAAAGCGGTAGCAAACCAAACCTCAGCCACTTTCTTGAAA GTGGTTGGCTCTGAACTTATTCAGAAGTACCTAGGTGATGGGCCCAAACTTGTACGGGAATTGTTTCAAGTTGCT GGAGAACATGCACCATCCATCGTGTTTACTGATGAAACTGACGCCATTGGGACAAAAAGATATGACTCAAATTCT GGTGAAGCTGGTCTGATGGCCTTAAGAGAACGTAGAATGAAAGCAACAAATGAAGACTTCAAAAAATCTAAAGAA AATGTTCTTTATAAGAAACAGGAAGGCACCCCTGAGGGGCTGTCTCTCTAG

MSVGTLEEINDSHAIVSTSVGSGHYANILSFVDKDLLATGCSVLLNHKVHAMRGVLMDDVDPLVTVMKVEKVPQE TYANTGRLDNQIQEIKESVELPLTHAEHYEEMGIKPPKGVILYGPPGIVKTLLAKAVANQTSATFLKVVGSELIQ KYLGDGPKLVRELFQVAGEHAPSIVFTDETDAIGTKRYDSNSGEAGLMALRERRMKATNEDFKKSKENVLYKKQE GTPEGLSL

GACCCAGACGCCGGCCGGACCAGGAGGACGCTGACGAGGCACCATGCGTGAGATCGTGCACATCCAGGCGGGCCAG TGCGGCAACCAGATCGGCGCCAAGTTTTGGGAGGTCATCAGTGATGAGCATTGACCCCACTGGCAGTTAC CATGGAGACAGTGATTTGCAGCTGGAGAGAATCAATGTTTACTACAATGAAGCCACTGGTAACAAATATGTTCCT CGGGCCATCCTCGTGGATCTGGAGCCAGGCACGATGGATTCGGTTAGGTCTGGACCATTCGGCCAGATCTTCAGA CCAGACAATTTCGTGTTTGGCCAGAGTGGAGCCGGGAATAACTGGGCCCAAGGGCCACTACACAGAGGGAGCCGAG CTGGTCGACTCGGTCCTGGATGTGGTGAGGAAGGAGTCAGAGGGCTTGTGACTGTCTCCAGGGCTTCCAGCTGACC CACTCTCTGGGGGGCGCACGGGTCCGGGATGGGCACCCTGCTCATCAGCAAGATCCGGGAAGAGTACCCAGAC CGCATCATGAACACCTTCAGCGTCATGCCCTCACCCAAGGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACC CTCTCGGTCCACCAGCTGGTGGAAAACACAGATGAAACCTACTGCATTGACAACGAGGCCCTGTATGACATCTGC TTCCGCACCTGAAGCTGACCACCCCACCTACGGGGACCTCAACCACCTGGTGTCGGCCACCATGAGCGGGGTC ACCACCTGCCTGCGCTTCCCGGGCCAGCTGAACGCAGACCTGCGCAAGCTGGCGGTGAACATGGTGCCCTTCCCT CCCGAGCTCACCCAGCAGATGTTCGACTCCAAGAACATGATGGCCGCCTGCGACCCGCGCCACGGCCGCTACCTG ACGGTGGCTGCCATCTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTCAACGTGCAGAACAAG AACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTG AAGATGTCGGCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACG GCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCC GAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACGGCCGACGACAACAAGGGGAGTTC GAGGAGGAGGAGGACGAGGCGTAGATGCCCCCGCGAGACGGGTTAGGGAAAGCGGAGGAGGAAAGCGAG TTGAGATATTTCTGAATTACTGTTGTAATGGCTAAAATCACATAAACGTTTGTGTCGG

# FIGURE 2050

GCCCGCCGGTCCACGCCGCGCACCGCTCCGAGGGCCAGCCGCCACCCGCTCCGCAGCCGCACCATCCGCAGATC GTGCACATCCAGGCGGGCCAGTGCGGCAACCAGATCGGCGCCAAGTTTTGGGAGGTCATCAGCGATGAGCATGGG ATCGACCCCACAGGCAGTTACCATGGAGACAGTGACTTGCAGCTGGAGAGAATCAACGTGTACTACAATGAGGCT GCTGGTAACAAATATGTACCTCGGGGCCATCCTGGTGGATCTGGAGCCTGGCACCATGGACTCTGTCAGGTCTGGA CCCTTCGGCCAGATCTTCAGACCAGACAACTTCGTGTTCGGCCAGAGTGGAGCCGGGAATAACTGGGCCAAGGGC CTCCAGGGCTTCCAGCTGACCCACTCTCTGGGGGGCGCACGGGGTCCGGGATGGGCACCCTGCTCATCAGCAAG ATCCGGGAAGAGTACCCAGACCGCATCATGAACACCTTCAGCGTCATGCCCTCACCCAAGGTGTCAGACACGGTG GTGGAGCCCTACAACGCCACCCTCTCGGTCCACCAGCTGGTGGAAAACACAGATGAAACCTACTCCATTGATAAC GAGGCCCTGTATGACATCTGCTTCCGCACCCTGAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTG TCGGCCACCATGAGCGGGGTCACCACCTGCCTGCGCTTCCCGGGCCAGCTGAACGCAGACCTGCGCAAGCTGGCG GTGAACATGGTGCCCTTCCCTCGCCTGCACTTCTTCATGCCCGGCTTCGCGCCCCTGACCAGCCGGGGCAGCCAG CAGTACCGGGCGCTCACGGTGCCCGAGCTCACCCAGCAGTGTTCGACTCCAAGAACATGATGGCCGCCTGCGAC ATGCTCAACGTGCAGAACAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCCAACAACGTGAAGACGGCCGTGTGC GACATCCCGCCCCGCGGCCTGAAGATGTCGGCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAG CGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGAC GAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACG GCCGACGAACAAGGGGAGTTCGAGGAGGAGGAGGGCGAGGACGAGGCT<u>TAA</u>AAACTTCTCAGATCAATCGTGCAT CCTTAGTGAACTTCTGTTGTCCTCAAGCATGGTCTTTCTACTTGTAAACTATGGTGCTCAGTTTTGCCTCTGTTA GAAATTCACACTGTTGATGTAATGATGTGGAACTCCTCTAAAAATTACAGTATTGTCTGTGAAGGTATCTATACT AATAAAAAGCATGTGTAG

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGSYHGDSDLQLERINVYYNEAAGNKYVPRAILVDLEPGTMDS VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKESESCDCLQGFQLTHSLGGGTGSGMGTL LISKIREEYPDRIMNTFSVMPSPKVSDTVVEPYNATLSVHQLVENTDETYSIDNEALYDICFRTLKLTTPTYGDL NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDSKNMM AACDPRHGRYLTVAAIFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATADEQGEFEEEEGEDEA

ATGCCACACGCACCGCCACCCCCAGCGCCCCGGGGCTCCGGGGACGGCGAGATGGGCAAGCCCAGGAACGTG GCGCTCATCACCGGTATCACAGGCCAGGATGGTTCCTACCTGGCTGAGTTCCTGCTGGAGAAAGGCTATGAGGTC CATGGAATTGTACGGCGGTCCAGTTCATTTAATACGGGTCGAATTGAGCATCTGTATAAGAATCCCCAGGCTCAC ATTGAAGGAAACATGAAGTTGCACTATGGCGATCTCACTGACAGTACCTGCCTTGTGAAGATCATTAATGAAGTA AAGCCCACAGAGATCTACAACCTTGGAGCCCAGAGCCACGTCAAAATTTCCTTTGACCTCGCTGAGTACACTGCG GACGTTGACGGAGTTGGCACTCTACGACTTCTAGATGCAGTTAAGACTTGTGGCCTTATCAACTCTGTGAAGTTC TACCAAGCCTCAACAAGTGAACTTTATGGGAAAGTGCAGGAAATACCCCAGAAGGAGACCACCCCTTTCTATCCC CGGTCACCCTATGGGGCAGCAAAACTCTATGCCTATTGGATTGTGGTGAACTTCCGTGAGGCGTATAATCTCTTT GCAGTGAACGGCATTCTCTTCAATCATGAGAGTCCCAGAAGAGGGGGCTAATTTCGTTACTCGAAAAATTAGCCGG TCAGTAGCTAAGATTTACCTTGGACAACTGGAATGTTTCAGTTTGGGAAATCTGGATGCCAAACGAGATTGGGGC CATGCCAAGGACTATGTGGAGGCTATGTGGTTGATGTTGCAGAATGATGAGCCGGAGGACTTCGTTATAGCTACT GGGGAGGTCCATAGTGTCCGGGAATTTGTCGAGAAATCATTCTTGCACATTGGAAAAACCATTGTGTGGGAAGGA AAGAATGAAATGAAGTGGGCAGATGTAAAGAGACCGGCAAAGTTCACGTGACTGTGGATCTCAAGTACTACCGG CCAACTGAAGTGGACTTTCTGCAGGGCGACTGCACCAAAGCGAAACAGAAGCTGAACTGGAAGCCCCGGGTCGCT TTCGATGAGCTGGTGAGGGAGATGGTGCACGCCGACGTGGAGCTCATGAGGACAAACCCCAATGCC**TGA**GCAGCG CCTCGGAGCCCGGCCCCCCCGCCTACAATCCCCGCAGAGTCTCCGGTGCAGACGCGCTGCGGGGATGGGGAG CGGCGTGCCAATCTGCGGGTCCCCTGCGGCCCCTGCTGCGCTGTCCCGGCCGCAAGAGCGGGGCCGCCC CGCCGAGGTTTGTAGCAGCCGGGATGTGACCCTCCAGGGTTTGGGTCGCTTTGCGTTTGTCGAAGCCTCCTCTGA ATGGCTTTGTGAAATCAAGATGTTTTAATCACATTCACTTTACTTGAAATTATGTTGTTACACAACAAATTGTGG **GGCCTTCAAATTGTTTTTCC** 

MAHAPARCPSARGSGDGEMGKPRNVALITGITGQDGSYLAEFLLEKGYEVHGIVRRSSSFNTGRIEHLYKNPQAH IEGNMKLHYGDLTDSTCLVKIINEVKPTEIYNLGAQSHVKISFDLAEYTADVDGVGTLRLLDAVKTCGLINSVKF YQASTSELYGKVQEIPQKETTPFYPRSPYGAAKLYAYWIVVNFREAYNLFAVNGILFNHESPRRGANFVTRKISR SVAKIYLGQLECFSLGNLDAKRDWGHAKDYVEAMWLMLQNDEPEDFVIATGEVHSVREFVEKSFLHIGKTIVWEG KNENEVGRCKETGKVHVTVDLKYYRPTEVDFLQGDCTKAKQKLNWKPRVAFDELVREMVHADVELMRTNPNA

#### 2236/6881 FIGURE 2054A

CGCCGCGGCCCGGTACCAACGGGTGGTCTCGCCGAGGGAGCTGTCGTGCCTCGTGGTCCCGGGACTGCAGTGGTG TGCGCTCTCGGCGCGTGGCGCTAGGCATGGCGATGGATCAAGTAAACGCGCTGTGCGAGCAGCTGGTGAAAGCGG TGACGGTCATGATGGACCCCAACTCCACCCAGCGCTACCGGCTGGAAGCCCTCAAGTTTTGTGAGGAGTTTAAAG AAAAGTGTCCTATCTGTGTCCCCTGTGGCTTGAGGTTGGCTGAGAAAACACAAGTTGCCATCGTCAGACATTTTG GCCTTCAGATCCTGGAACACGTTGTCAAGTTTCGGTGGAACGGCATGTCTCGATTGGAGAAGGTGTATCTGAAGA ACAGTGTCATGGAGCTGATTGCAAATGGAACATTGAACATTTTGGAAGAGGAGAACCATATTAAAGATGCTCTGT CTCGAATTGTAGTGGAAATGATCAAGCGAGAGTGGCCACAGCATTGGCCTGACATGCTAATAGAATTGGACACTC TTTCCAAACAAGGGGAAACACAGACAGAATTGGTGATGTTTATCCTTTTGCGACTGGCAGAGGATGTAGTGACTT TTCAGACACTTCCCCCTCAAAGAAGAAGGGACATCCAGCAAACATTAACCCAGAACATGGAAAGGATCTTCAGTT TTCTGCTTAACACACTTCAAGAAAATGTAAACAAGTATCAGCAAGTGAAGACAGATACTTCTCAGGAGTCAAAGG CGCAAGCAAACTGTCGAGTAGGAGTTGCAGCACTGAATACTCTAGCAGGCTATATTGACTGGGTGTCTATGAGTC CCGCTGAGTGTCTTCTCATTGCAGTCAGCAGAAAAGGCAAGTTGGAAGACCGGAAGCCCTTGATGGTCTTATTTG GAGATGTTGCCATGCATTATATACTCTCCGCCGCACAGACTGCTGATGGAGGAGGTTTGGTAGAAAAACACTACG TCTTTCTGAAGAGGCTCTGTCAGGTGTTGTGTGCGCTGGGCAATCAGCTGTGTGCATTGCTGGGTGCAGATTCTG ATGTAGAAACACCATCAAACTTTGGAAAATACCTGGAATCTTTTCTTGCTTTCACAACCCATCCAAGTCAGTTTC TACGCTCTTCAACTCAGATGACTTGGGGAGCCCTCTTCAGGCATGAAATCCTGTCCCGTGATCCTTTGCTATTAG CTAGCTGTGAATATTCTCGGTTTGATTTTGATAGCGATGAGGACTTCAATGCTTTCTTCAACTCCTCCCGAGCAC AACAAGGAGAGGTGATGAGGTTGGCATGTCGTTTGGATCCCAAAACTAGCTTCCAGATGGCTGGGGAGTGGCTAA TCTGTTCCGTCTTCTCACCTTCATTCGTGCAGTGGGAAGCCATGACTCTTTTTTTGGAAAGTGTTATCACCCAGA TGTTTCGAACACTAAATAGAGAAGAAATTCCTGTTAATGATGGAATAGAGCTATTGCAGATGGTTCTGAACTTTG ATACCAAGGATCCCTCATCCTGCGTCCTTACTAATGTCTCTGCACTCTTTCCATTTGTCACCTACAGAC CAGAGTTCCTGCCCCAGGTCTTCTCTAAGCTATTTTCATCTGTCACTTTTGAAAACTGTTGAAGAAAGTAAGGCCC CCAGAACCCGGGCAGTGAGGAATGTGAGGAGGCATGCTTGTTCCTCCATCAAGATGTGTCGTGACTACCCCC AGCTTGTGCTGCCCAATTTTGACATGCTTTATAACCATGTGAAGCAACTCCTCTCCAATGAGCTACTCCTGACAC AAATGGAGAAGTGTGCCCTCATGGAAGCCCTGGTTCTCATTAGCAACCAATTTAAGAACTACGAGCGTCAGAAGG TGTTCCTAGAGGAGCTGATGGCACCAGTGGCCAGCATCTGGCTTTCTCAAGACATGCACAGAGTGCTGTCAGATG TTGATGCTTTCATTGCGTATGTGGGTACAGATCAGAAGAGCTGTGACCCAGGCCTGGAGGATCCGTGTGGCTTAA ACCGTGCACGAATGAGCTTTTGTGTATACAGCATTCTGGGTGTGAAACGAACTTGCTGGCCCACTGACCTAG AAGAGGCCAAAGCTGGGGGATTTGTGGTGGGTTATACATCCAGTGGAAATCCAATCTTCCGTAACCCCTGCACAG AGCAGATTCTGAAACTTCTTGACAATTTGCTTGCGCTTATAAGAACCCACAATACATTATATGCACCAGAAATGC TAGCCAAAATGGCAGAGCCTTTCACCAAGGCTCTGGATATGCTTGACGCGGAAAAATCTGCTATATTAGGATTAC CTCAACCTCTCTGGAACTCAATGACTCTCCTGTCTTCAAAACCGTCTTGGAAAGAATGCAGCGTTTCTTCTCTA ACCTTGCTACCCAGCTTCTCAGCTCAGCCTTTGTCAACTTGAACAATATTCCTGACTACCGACTCAGACCCATGC TTCGGGTCTTTGTAAAGCCTCTGGTGCTCTTCTGTCCCCCAGAGCACTATGAAGCCCTGGTATCCCCCATCCTCG GACCTCTTTTCACCTACCTCCATATGAGGCTTTCTCAGAAATGGCAAGTTATCAACCAAAGGAGCCTGCTGTGTG GAGAAGATGAGGCTGCAGATGAAAACCCAGAGTCTCAAGAGATGCTGGAGGAGCAACTGGTGAGGATGTTAACCC GAGAAGTCATGGACCTAATCACGGTTTGCTGTTTTCAAAGAAGGGTGCTGACCACAGTAGTGCTCCCCCAGCAG ATGGAGACGATGAAGAAATGATGGCCACAGAGGTCACCCCCTCAGCTATGGCAGAGCTTACAGACCTGGGCAAAT TGTCCTGCCAGAGGACAACCTCACAGCTCTGCTGGCCTCTCCTCAAACAAGTGCTGTCAGGGACACTGCTCGCAG ATGCAGTTACGTGGCTTTTCACCAGTGTGCTGAAAGGCTTACAGATGCACGGGCAGCACGACGGGTGCATGGCTT CCCTGGTCCATCTGGCCTTCCAGATATACGAGGCACTGCGCCCCAGGTACCTGGAGATAAGAGCTGTAATGGAGC CTGACAAGCGCCGAAAGGACCAATTCAAACGCCTCATTGCTGGTTGCATTGGGAAACCCTTGGGAGAGCAGTTCC

#### 2237/6881 FIGURE 2054B

TGTCATCTCTTCTTTCCCTTTGTAGCCGATCTCTAGGCCCTTCTTGCACTGCCACCTCACTTTCCACCACTGTCA GCCTGGAAAGAGATCCAGGTCTGGAGCTGGAGAAACAGGCCCTGTGCAGGACCAGAAGTAATTATACTAAAGTA TCAAGAAAGGGAGTTAGGGCTTAAACTATTCTGTCTAGATGTCCCAGATAGTTCCCATTCTACTTGGAGATTTGG CTTTTCCAAGAAAAGCTAGAGCAGAGCAGCCCTTCTCCCACAAGCCCTCCCACCCCGTGCAGCCACATACCTGT ACAGAATGGTAACTAAGGGTGCTGTGCCCAACCCTGCGACTAGCAAGGCTCGCAGCAAGAGCACAGCCCTCAACT ACTTGTGCCAGAGTTTCTCTTGGACCACTCCAACTCCACTGAGCCCTTTTGCTGCTGGGCTGGCAGGAAACTTT CCCCACTCCCTAAGGGGCATGTCTGGGTTAGGTGCTAAGTGCTGAAGAGAACTTGGTCAGTTCTCTCAACTTTGC TTTGGGCAAGAATCTGGTCACCTGATGGGATCCATGGTACAGGCTACTGCTAAACTTGGCACAGTATCAAGTATA GTACCTCCAAGGACCAGGGCTGGGCAGTCTTTAGTGCTAACATCCCCTTTAGAGTTCACACATCTTGCCCTTCCA TGAATGACCCCTCAGTCTGGCCTCCCCAGCCTCAAGGTCCACTCAGGCACAAGAGCCACAGTACCCTAGATAGTG TCACATGACACCGTTGTCATCCAAGGATAATACAGACCAACTAGGCTACATCTGTGATGAGCAGCTAGCAAAGCC GCTGGTCTTCTCCTAGGACTAAGTCCAGGTGCCTTCCACAATCTCATGGTCTTTCAGGTCCCTGGTTACTTTTCT CAAAGGCCATTTCCAAAAGAATACATGCCTTCACATCACAACCTGTACTGTGAGTCCATTCTAGAGGTCACTGAA AGGCCCTGTAAAGAGAGGACATGGATACGGGACCTGGCCCTGAGGTTATTACTGGCCGTAAGGCAGAGTTAATCC AAGCAAAGCTGGGGAAGCAGAAGTTGGGAGTCTTGTGTTGCTCCCTCTTCCTGTGTGGTGCTCTGGGTTTCTGTG GATCGTGAAGGCGATCTCAAGAGTGTTTCCCTCCAAACCTGATAGCTGCCTATTCCTGTCTGGTTGGGGCTGTGG AGGATGTAGTTGTATTTATTGCATTGTAATATTTTTAACATCCTGTGACTTCATGCTAGAAATTTTCTATTGTTT ATAGAAACTTTTTGTAGAAACATTAACTCTAAAGCACATCTGCATGTCAGTAAAAATCTCAGTTTCGTACAG

MAMDQVNALCEQLVKAVTVMMDPNSTQRYRLEALKFCEEFKEKCPICVPCGLRLAEKTQVAIVRHFGLQILEHVV KFRWNGMSRLEKVYLKNSVMELIANGTLNILEEENHIKDALSRIVVEMIKREWPQHWPDMLIELDTLSKQGETQT ELVMFILLRLAEDVVTFQTLPPQRRRDIQQTLTQNMERIFSFLLNTLQENVNKYQQVKTDTSQESKAQANCRVGV AALNTLAGYIDWVSMSHITAENCKLLEILCLLLNEQELQLGAAECLLIAVSRKGKLEDRKPLMVLFGDVAMHYIL SAAQTADGGGLVEKHYVFLKRLCQVLCALGNQLCALLGADSDVETPSNFGKYLESFLAFTTHPSQFLRSSTQMTW GALFRHEILSRDPLLLAIIPKYLRASMTNLVKMGFPSKTDSPSCEYSRFDFDSDEDFNAFFNSSRAQQGEVMRLA CRLDPKTSFOMAGEWLKYOLSTFLDAGSVNSCSAVGTGEGSLCSVFSPSFVOWEAMTLFLESVITOMFRTLNREE  ${\tt IPVNDGIELLQMVLNFDTKDPLILSCVLTNVSALFPFVTYRPEFLPQVFSKLFSSVTFETVEESKAPRTRAVRNV}$ RRHACSSIIKMCRDYPQLVLPNFDMLYNHVKQLLSNELLLTQMEKCALMEALVLISNQFKNYERQKVFLEELMAPVASIWLSQDMHRVLSDVDAFIAYVGTDQKSCDPGLEDPCGLNRARMSFCVYSILGVVKRTCWPTDLEEAKAGGFV VGYTSSGNPIFRNPCTEQILKLLDNLLALIRTHNTLYAPEMLAKMAEPFTKALDMLDAEKSAILGLPQPLLELND SPVFKTVLERMQRFFSTLYENCFHILGKAGPSMQQDFYTVEDLATQLLSSAFVNLNNIPDYRLRPMLHVFVKPLV LFCPPEHYEALVSPILGPLFTYLHMRLSQKWQVINQRSLLCGEDEAADENPESQEMLEEQLVRMLTREVMDLITV CCVSKKGADHSSAPPADGDDEEMMATEVTPSAMAELTDLGKCLMKHEDVCTALLITAFNSLAWKDTLSCQRTTSQ LCWPLLKQVLSGTLLADAVTWLFTSVLKGLQMHGQHDGCMASLVHLAFQIYEALRPRYLEIRAVMEQIPEIQKDS LDQFDCKLLNPSLQKVADKRRKDQFKRLIAGCIGKPLGEQFRKEVHIKNLPSLFKKTKPMLETEVLDNDGGGLAT IFEP

## FIGURE 2056

AAAACACCAAATGGCGGATGACGCCGGTGCAGTGGGGGGGCCTGGAGGCCCTGGTGGCCCTGGGATGGGGAACCG
CGGTGGCTTCCGCAGAGGTTTCGCCAGTGGCATCCGGGGCCGGGGTCGCAGCCGTGGACCGGGCCGGGGCTGAGG
CCGCGGAGCTCGCGGAGGCAAGGCCAAAGATAAGGAGTGGATGCCCGTCACCAAGCTGGGCCGCTTGGTCAAGGA
CATGAAGATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCCATTAAGGAATCAGAGATCATTGACTTTTT
CCTGGGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCTGGCCAGCGCAC
CAGGTTCAAGGCGTTTGTTGCTATCGGGGACTACAGTGGCCACGTCGGTCTGGGTGTTAAGTGCTCCAAGGAGGT
GGCCACCGCCACCCGTGGGGCCATCATCCTGGCCAAGCTCTCCATTGTCCCCGTGCACAGAGGCTACTAGGGGAA
CAAGATCGGCAAGCCCCACACCGTCCCCTGCAAGGTGACAGGCCGCCGTGGCTCTGTGCTGGTGCGCCTCATCCC
TGCACCCAGGGGCACTGGCATTGTCTCCGCACCTGTGCCCAAGAAGCTGCTCATGATGGCTGGTATCGATGACTG
CTACACCTCAGCCCAGGGCTGCACTCTGGCAAGAAGCTGCTCATGATGCCATTTCTAAGAC
CTACAGCTACCTGACCCCGACCTCTGGAAGGAGACCTGTATTTACCAAGTCTCCCTATCAGGAATTCACTGACCA
CCTCGTCAAGACCCACACCAGAGTCTCTGTGCAGCAGACCCAGGCTCCAGCTGTGCCTACAACATAGGGTTTTTA
TACAAGAAAAATAAAGTGAATTAAGCGTG

GGGCTGCGCTCTCCAGCTGTGGCTATGGCCCCAGCCCCGAGATGAGGAGGAGAACTAGGGGCCCGCAGGCCT GCCAGGGAAAACCGAGAACACCATCACCATGACAACCAGTCACCAGCCTCAGGACAGATACAAAGCTGTCTGGCT TATCTTCTTCATGCTGGGTCTGGGAACGCTGCTCCCGTGGAATTTTTTCATGACGGCCACTCAGTATTTCACAAA CCGCCTGGACATGTCCCAGAATGTGTCCTTGGTCACTGCTGAACTGAGCAAGGACGCCCAGGCGTCAGCCGCCCC TGCAGCACCCTTGCCTGAGCGGAACTCTCTCAGTGCCATCTTCAACAATGTCATGACCCTATGTGCCATGCTGCC CCTGCTGTTATTCACCTACCTCAACTCCTTCCTGCATCAGAGGATCCCCCAGTCCGTACGGATCCTGGGCAGCCT GGTGGCCATCCTGCTGGTGTTTCTGATCACTGCCATCCTGGTGAAGGTGCAGCTGGATGCTCTGCCCTTCTTTGT CCTTCTGCCTGCCAGCTACACGGCCCCCATCATGAGTGGCCAGGGCCTAGCAGGCTTCTTTGCCTCCGTGGCCAT GATCTGCGCTATTGCCAGTGGCTCGGAGCTATCAGAAAGTGCCTTCGGCTACTTTATCACAGCCTGTGCTGTTAT CATTTTGACCATCATCTGTTACCTGGGCCTGCCCCGCCTGGAATTCTACCGCTACTACCAGCAGCTCAAGCTTGA AGGACCCGGGGAGCAGGAGCCAAGTTGGACCTCATTAGCAAAGGAGGAGCCCAAGAGCAGCCAAAGAGGAATC TGGAGTTTCAGTCTCCAACTCTCAGCCCACCAATGAAAGCCACTCTATCAAAGCCATCCTGAAAAATATCTCAGT CCTGGCTTTCTCTGTCTCATCTTCACTATCACCATTGGGATGTTTCCAGCCGTGACTGTTGAGGTCAAGTC CAGCATCGCAGCCAGCACCTGGGAACGTTACTTCATTCCTGTGTCCTGTTTCTTGACTTTCAATATCTTTGA GGCCCGGCTGTTTTGTGCCACTGCTGCTGCTGCAACATTAAGCCCCGCCGCTACCTGACTGTGGTCTTCGA GCACGATGCCTGGTTCATCTTCATGGCTGCCTTTGCCTTCTCCAACGGCTACCTCGCCAGCCTCTGCATGTG TCTGGCACTGGGGGCTGTTTTCTCCTTCCTGTTCCGGGCAATTGTGTGACAAAGGATGGACAGAAGGACTGCCTG CCTCCCTCCTGCCTCCTCCCTCCTTCTTCTGCCAGGGGTGATCTTGAGTGGTCTGGCGGTTTTTTCTTCT GTGGGGACATTGTGGGTTTGGGGCTCAGAGTCGAGGGACGGGTGTAGCCTCGGCATTTGCTTGAGTTTCTCCAC TCTTGGCTCTGACTGATCCCTGCTTGTGCAGGCCAGTGGAGGCTCTTGGGCTTGGAGAACACGTGTGTCTCTGTG TATGTGTGTGTGTCTGCGTCCGTGTCTGTCAGACTGTCTGCCTGTCCTGGGGTGGCTAGGAGCTGGGTCTGAC CGTTGTATGGTTTGACCTGATATACTCCATTCTCCCCTGCGCCTCCTCTGTGTTCTCCATGTCCCCCTCC CAACTCCCCATGCCCAGTTCTTACCCATCATGCACCCTGTACAGTTGCCACGTTACTGCCTTTTTTAAAAATATA 

# FIGURE 2058

CCGGGGACTCGCATTCCCCGGTTCCCCCTCCACCCCACGCGGCCTGGACCATGGACGCCAGATGGTGGGCAGTGG TGGTGCTGGCTGCGTTCCCCTCCCTAGGGGCAGGTGGGGAGACTCCCGAAGCCCCTCCGGAGTCATGGACCCAGC TATGGTTCTTCCGATTTGTGGTGAATGCTGCTGGCTATGCCAGCTTTATGGTACCTGGCTACCTCATGGTGCAGT ACTTCAGGCGGAAGAACTACCTGGAGACCGGTAGGGGCCTCTGCTTTCCCCTGGTGAAAGCTTGTGTGTTTGGCA ATGAGCCCAAGGCCTCTGATGAGGTTCCCCTGGCGCCCCGAACAGAGGCGGCAGAGACCACCCCGATGTGGCAGG CCCTGAAGCTGCTCTTCTGTGCCACAGGGCTCCAGGTGTCTTATCTGACTTGGGGTGTGCTGCAGGAAAGAGTGA TGACCCGCAGCTATGGGGCCACAGCCACATCACCGGGTGAGCGCTTTACGGACTCGCAGTTCCTGGTGCTAATGA ACCGAGTGCTGGCACTGATTGTGGCTGGCCTCTCCTGTGTTCTCTGCAAGCAGCCCCGGCATGGGGCACCCATGT ACCGGTACTCCTTTGCCAGCCTGTCCAATGTGCTTAGCAGCTGGTGCCAATACGAAGCTCTTAAGTTCGTCAGCT GCTACGAACACTGGGAGTACCTGACAGCCACCCTCATCTCCATTGGGGTCAGCATGTTTCTGCTATCCAGCGGAC  ${\tt TCACCTCAAACTGGCAGGATGCCCTGTTTGCCTATAAGATGTCATCGGTGCAGATGATGTTTGGGGTCAATTTCT}$ TCTCCTGCCTCTTCACAGTGGGCTCACTGCTAGAACAGGGGGCCCTACTGGAGGGAACCCGCTTCATGGGGCGAC ACAGTGAGTTTGCTGCCCATGCCCTGCTACTCTCCATCTGCTCCGCATGTGGCCAGCTCTTCATCTTTTACACCA TTGGGCAGTTTGGGGCTGCCGTCTTCACCATCATCATGACCCTCCGCCAGGCCTTTGCCATCCTTCTTTCCTGCC TTCTCTATGGCCACACTGTCACTGTGGTGGGAGGCCTGGGGGTGGCTGTGGTCTTTGCTGCCCTCCTGCTCAGAG TCTACGCGGGGGCCGTCTAAAGCAACGGGGAAAGAAGCTGTGCCTGTTGAGTCTCCTGTGCAGAAGGTTTGAG GGTGGAAAGGGCCTGAGGGGTGAAGTGAAATAGGACCCTCCCACCATCCCCTTCTGCTGTAACCTCTGAGGGAGC TGGCTGAAAGGGCAAAATGCAGGTGTTTTCTCAGTATCACAGACCAGCTCTGCAGCAGGGGATTGGGGAGCCCAG GAGGCAGCCTTCCCTTTTGCCTTAAGTCACCCATCTTCCAGTAAGCAGTTTATTCTGAGCCCCGGGGGTAGACAG CCCTGGTGAGAAAAGCACAAGCGGTGTAGGCTCCAATGCTGCTTTCCCAGGAGGGTGAAGATGGTGCTGTGCTGA GGAAAGGGGATGCAGAGCCCTGCCCAGCACCACCACCTCTATGCTCCTGGATCCCTAGGCTCTGTTCCATGAGC CTGTTGCAGGTTTTGGTACTTTAGAAATGTAACTTTTTGCTCTTATAATTTAATTTAAATTAAATTAAATTACTGC Α

WO 2004/030615 PCT/US2003/028547

#### 2242/6881 FIGURE 2059

CAGAATCGGTAGACATTGCGAACCAGGTTATGAAGTGCAAGGCTGCAGTTGCTTGGGAGGCTGGAAAGCCTCTCT CCATAGAGGAGATAGAGGTGGCACCCCCAAAGGCTCATGAAGTTCGAATCAAGATCATTGCCACTGCGGTTTGCC ACACCGACGCCTATACCCTGAGGGGAGCTGATCCTGAGGGTTGTTTTCCAGTGATCTTGGGACATGAAGGTGCCG GAATTGAGGAAAGTGTTGGCGAGGGAGTTACTAAGCTGAAGGCGGGTGACACTGTCATCCCACTTTACATCCCAC AGTGTGGAGAATGCAAATTTTGTCTATATCCTAAAACTAACCTTTGCCAGAAGATAAGAGTCACTCAAGGGAAAG GATTAATGCCAGATGGTACCAGCAGATTTACTTGCAAAGGAAAGACAATTTTGCGTTACATGGGAACCAGCACAT TTTCTGAATACACAGTTGTAGCTGATATCTCTGTTGCTAAAATAGATCCTTTAGCACCTTTGGATAAACTCTGCC TTCTAGGTTGTGGCATTTCAGCTGGTGATGGTGCTGCTGTGAACACTGCCAAGGTGGAACCTGGCTCTGTTTGTG CCGTCTTTGGTCTGGGAGGAGTTGGATTGGCAGTTATCAAGGGCTGTAAAGTGGCTGGTGCATCCCGGATCATTG GTGTGGACATCAATAAAGATAAATTTGCAAGGGCCAAAGAGTTTGGAGCCACTGAATGTATTAACCCTCAGGGTT TTAGTAAACCCATCCAGGAAGGGCTCATTGAGACGACTGATGGAGGAGTGGACTATTCCTTTGAATGTATTGGTA ATGTGAAGGTCATGAGAGCAGCACTTGAGGCTTATCACAAGGGCTGGGGAGTCAGCGTGGTGGTTGGAGTAGCTG CTTCAGGTGAAGAAATTGCCACTCGTCCATTCCAGCTGGTAACAGGTCGCACATGGAAAGGAACTGCCTTTGGAG GATGGAAGAGTGTAGAAAGTGTCCCAAAGTTGGTGTCTGAATATATGTCCAAAAAAATAAAAGTTGATGAATTTG TGACTCACAATCTGTCTTTTGGTGAAATTAACAAAGCCTTTCAACTGATGCATTCTGGAAAGAGCATTCGAACTG TTGTAAAGATTTAATTCAAAAGAGAAAAATAATGTCCAACCTGTCGTGATGTGATGGGAGCAGCTTAACAGGCAG GGAGAAGCGCCTCCAAACTCACAGCCTCGTAGAGCTTCGCAGCTACCCCAGAGAATAGTGTTATGAGTGTAATTC TGCTAGCTTATTAAGGAATATTTTAACATAATAAAAGTAATTTCTACATTTGTGTAGAAATTGTCTTTGTTTTAT GCTGTAATCATTGTCATGGTTTGTCTGCCCATTATCTTCATTCTGTAAGGGAAATGTAAAGGAAGCAGGGCAGTG AGCCATCAGTGACAAAGTTAATCAGGAGCCAAGTCTGCTTCTGTGATATTATCTTGAAGGGAGGTACTGTGCCTT GTTCGTGCCTGTACCCCAAATTCCTAGTATGGCATCTGCCCCTCAGGGGACACTAAAATGTATTATTGAAACAGC ATATCCAAGTTCTCAGCACCTACTTTTGTCAAATCTTAACATTTTGCCACTTCCACATCACATTGCCATTCCTCC CCTCCAGAGGTAACAATTATCCAAAATTTGATGTTTGTCATTCCTGTGTTGTTGTACTTTCACTGTGTATAACCT AAACCATCTACTCTTTAGTACTGTTTTATATATTTTTTAAGCCTTATACTTGCTCATTCTACAGCTTTTCTTTTT CGAACTATCTTAATTCATCTGTTCTCCAGTTGAAGGCATGAAGTTGTTGCCAGTTTCTGTATTACAACACTGTAG TGGAACATTCTTCTGCATTGGGCTCACTACATTAGTTACTTAAGATGTGTATCACAGAATAAACACATTTAGCCT TATAGACATTGCCAAATTTATCTTCAAAGTAAATGTGAGTTTTTGTGAATTACGTGAGTGTAGAATGGTGTTTTA TTATGAGTTTAGTTTGCATTTTCCACAA

ATGATCAAGGGTGTTACACTAGGCTTCCATTACAAGATGAGATCTGTGTATGCTCACTTCCCCATCAACGTCGTT ATCCAGGAGAATGGGTCTCTTGTTGAAATCCGAAAATTTCTTGGGTAAAAAAATACATCCGCAGGGTTTGGATGAGA GCAGGTGTTGTTTGTTCAGGTATCTCAAGCCCAGAAAGATGAATTAATCCTTGAAGGAAATGACATTGAGCTTGTT TCAAATTCAGCGGCTTTGATTCAACAAGCCACAACAGTTAAAAAAGAAGGAATTCAGGGAATTTTTGGATGGTATC TATGTCTCTGAAAAAAGGAACTGGTCAGCAGGCTGATGAA